Napa River Salt Marsh Restoration Project

Volume 2: Final Environmental Impact Statement - Comment Letters and Responses

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California State Coastal Conservancy

Coastal Conservancy

U.S. Army Corps of Engineers

California Department of Fish & Game

Final
Napa River Salt Marsh Restoration Project
Environmental Impact Report

Comment Letters and Responses

Volume 2

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Contents

Tables

Page

Chapter 1
Introduction

The purpose of the Final Environmental Impact Statement (Final EIS) for the Napa River Salt Marsh Restoration Project is to respond to all environmental comments received on the Draft EIR/EIS and integrate appropriate changes, additions, and/or corrections into the Final EIS. The Final EIS incorporates changes based on public and agency comments and is republished completely in Volume 1. This document, Volume 2, contains the comments and responses. All written comments received during or shortly after the close of the public comment period on June 16, 2003, are included in this document.

This chapter provides a brief project background, information on the EIS certification and project selection processes, the public involvement process, an overview of alternatives considered, areas of controversy, and an overview of the responses to comments. Subsequent chapters in the Final EIS Volume 2 include:

- Chapter 2. Master Responses
- Chapter 3. Responses to Comments

1.1 Project Background

The California State Coastal Conservancy (Coastal Conservancy), the Corps, and California Department of Fish and Game (DFG) (project sponsors) are proposing a salinity reduction and habitat restoration project for the 9,460-acre Napa River Unit of the Napa-Sonoma Marshes Wildlife Area (NSMWA). The parcel was purchased with funds from the Shell Oil Spill Settlement, the State Lands Commission, the Wildlife Conservation Board, and the Coastal Conservancy. The Napa River Unit is located at the northeast edge of San Pablo Bay, adjacent to the Napa River.

The Napa River Unit was first diked off from San Pablo Bay during the 1850s for hay production and cattle grazing. Dike construction continued for several years. Much of the land was converted in the 1950s to salt ponds for salt production through the solar evaporation of bay water. In the early 1990s, Cargill Salt Company stopped producing salt in the ponds on the west side of the Napa River and sold the evaporator ponds to the State of California, which assigned ownership and management of the ponds to DFG.

On September 28, 1994, the Committee on Public Works and Transportation of the U.S. House of Representatives adopted a resolution authorizing the *Napa-Sonoma Marsh Restoration Project Phase I and Phase II Feasibility Studies for the Napa River, California* (Docket 2448), and a reconnaissance study to evaluate the federal interest in the project was completed in 1997. The Corps issued a reconnaissance report in August 1997, and the project sponsors initiated the feasibility study in July 1998. The feasibility study has involved development and detailed evaluation of salinity reduction and habitat restoration options as well as an evaluation of the existing conditions at the Napa River Unit.

Restoration of the Napa River Unit has long been a vision for local resource agencies, conservationists, and planners. It is one of the largest tidal restoration projects on the west coast of the United States and one of many restoration projects throughout the San Francisco Bay area. Baywide restoration planning, including historical and existing conditions and future habitat recommendations, was conducted as part of the Baylands Ecosystem Habitat Goals Project (Goals Project 1999) and provides a regional framework for this project.

The Napa River Salt Marsh Restoration Project includes three primary components—salinity reduction, habitat restoration, and water delivery. Each of these components had numerous approaches to being implemented as outlined in the Draft EIR/EIS.

1.2 Certification and Selection Process

1.2.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA) (42 United States Code [USC] 4321; 40 Code of Federal Regulations [CFR] 1500.1) applies to all federal agencies and to most of the activities they manage, regulate, or fund that affect the environment. Therefore, it applies to the actions of the Corps and the Napa River Salt Marsh Restoration Project. NEPA requires all federal agencies to consider and to publicly disclose the environmental implications of their proposed actions through the preparation of appropriate documents (in this case a Final EIS). The President's Council on Environmental Quality (CEQ) has adopted regulations and other guidance that provide detailed procedures that federal agencies must follow to implement NEPA. The Corps has also adopted a set of procedures for NEPA compliance. Once the Corps has determined that the Final EIS has met the standards for EIS adequacy under NEPA, the CEQ NEPA Regulations, and its own NEPA regulations, it may adopt the Final EIS (40 CFR 1506.3[a]).

NEPA also requires that the lead agency circulate the Final EIS for at least 30 days before making a decision on the proposed action (i.e., selected proposed project). The Final EIS must be provided to federal agencies with jurisdiction by law or special expertise, environmental regulatory agencies, the project applicant, those requesting copies, and those who submitted substantive comments on the

Draft EIR/EIS (40 CFR 1502.19). The federal lead agency must also file the Final EIS with the EPA's Office of Federal Activities (40 CFR 1506.10[a]).

1.2.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to discretionary projects proposed to be carried out or approved by public agencies (Pub. Resources Code, § 21080). For the Napa River Salt Marsh Restoration Project, the Coastal Conservancy was initially acting as the lead agency, but that authority has been reassigned to DFG.

1.3 Public Involvement

The project sponsors have provided the public and public agencies with several opportunities for involvement with the project, which included discussions about key issues for the Draft EIR/EIS. These opportunities occurred at public meetings in 1998 and 2001 and a series of agency and restoration planning meetings between 1998 and 2003.

The public involvement process was initiated when the Coastal Conservancy issued a notice of preparation for the project on July 17, 1998, and the Corps issued a notice of intent for the project on July 16, 1998 (63 *Federal Register* [FR] 136). The first public scoping meeting was held on July 21, 1998, in the Napa County Board of Supervisors offices. The second public workshop was held on October 23, 2001, in the Napa City-County Library Community Meeting Room, Napa, California.

The public comment period for the Draft EIR/EIS began on May 2, 2003, with the filing of a notice of completion with the State Clearinghouse, and the formal public comment period closed on June 16, 2003. Approximately 300 notices were distributed to federal, state, and local agencies; elected officials; and other interest groups. Availability of the Draft EIR/EIS and Feasibility Report was also published for 3 days in three newspapers: *Napa Valley Register, Santa Rosa Press Democrat*, and *Vallejo Times Herald*.

A public meeting on the Draft EIR/EIS was held on May 21, 2003 at the Napa City-County Library. No formal comments on the Draft EIR/EIS were provided by the public at the meeting, though the Coastal Conservancy, DFG and Corps staff responded to questions (Appendix A).

1.4 Project Alternatives

NEPA and CEQA require the analysis of a range of alternatives. The project sponsors developed alternatives by combining the salinity reduction, water delivery, and habitat restoration options. Based on a detailed option and

alternative screening process, the following nine alternatives were included for detailed analysis:

- No-Project Alternative: Continued Site Deterioration and Loss of Habitat Values;
- Alternative 1: Napa River and Napa Slough Discharge (Salinity Reduction Option 1A), Recycled Water Delivery, and Mixture of Ponds and Tidal Marsh (Habitat Restoration Option 1);
- Alternative 2: Napa River and Napa Slough Discharge and Breach of Pond 3 (Salinity Reduction Option 1B), Recycled Water Delivery, and Mixture of Ponds and Tidal Marsh (Habitat Restoration Option 1);
- Alternative 3: Napa River and Napa Slough Discharge and Breach of Pond 3 (Salinity Reduction Option 1B), Recycled Water Delivery, and Tidal Marsh Emphasis (Habitat Restoration Option 2);
- Alternative 4: Napa River and Napa Slough Discharge and Breach of Pond 3 (Salinity Reduction Option 1B), Recycled Water Delivery, and Pond Emphasis (Habitat Restoration Option 3);
- Alternative 5: Napa River and Napa Slough Discharge and Breach of Pond 3 (Salinity Reduction Option 1B), Recycled Water Delivery, and Accelerated Restoration (Habitat Restoration Option 4);
- Alternative 6: Napa River and Napa Slough Discharge with Breaches of Ponds 3 and 4/5 (Salinity Reduction Option 1C), Recycled Water Delivery, and Mixture of Ponds and Tidal Marsh (Habitat Restoration Option 1);
- Alternative 7: Napa River and San Pablo Bay Discharge and Breach of Pond 3 (slight modification of Salinity Reduction Option 2), Recycled Water Delivery, and Accelerated Restoration (Habitat Restoration Option 4); and
- Alternative 8: Napa River and Napa Slough Discharge and Breach of Pond 3 (Salinity Reduction Option 1B), No Recycled Water, and Mixture of Ponds and Tidal Marsh (Habitat Restoration Option 1).

1.4.1 Environmentally Superior Alternatives

The Corps has identified Alternative 6 as the environmentally superior alternative. The environmentally superior alternative is the alternative that would result in the least damage to the biological and physical environment and that protects, preserves, and enhances the historical, cultural, and natural resources of the project area. As this is a restoration project, all alternatives by definition would benefit the biological and physical environment and are designed to enhance the natural resources in the project area. However, Alternative 6, the Napa River and Napa Slough Discharge with Breaches of Ponds 3 and 4/5 (Salinity Reduction Option 1C), Recycled Water Delivery, and Mixture of Ponds and Tidal Marsh (Habitat Restoration Option 1), is considered the environmentally superior alternative. Because it would result in relatively quick salinity reduction of the lower ponds (several weeks for Pond 3 and several

months for Pond 4/5), reducing the potential for adverse effects on aquatic resources, it is considered environmentally superior to the other alternatives. Construction-related ground disturbance associated with this alternative is equivalent to Alternatives 2, 5, 7, and 8, and less than Alternative 3. While there would be more construction-related ground disturbance than under Alternative 4, Alternative 4 does not result in the optimal mix of restored habitats. The short period of time for salinity reduction helps the habitat restoration process proceed sooner under Alternative 6 than under all others except Alternative 5 (which requires the use of fill). Alternative 6 provides a mixture of pond and tidal marsh habitats that meets the project objectives and is phased in a way that would minimize current and future adverse effects. Though some effects are less with Alternative 8, these effects can be mitigated, and the recycled water will help to accelerate the salinity reduction process of the upper ponds, optimize DFG's ability to manage the restored area, and assist local agriculture in the long-term. Recent modeling and discussions with the San Francisco Bay Regional Water Quality Control Board (RWQCB) confirm Alternative 6 is the environmentally superior alternative.

1.5 Areas of Controversy

The public and the resource agencies are supportive of the project, and there has been minimal controversy about the project as a whole; however, several areas of concern were initially identified, particularly related to water quality and ecosystem effects. Water quality concerns related to the environmental effects on aquatic resources, including those effects resulting from the potential project discharges. These concerns are being addressed through the water quality permitting process administered by the San Francisco Bay RWQCB. The ecosystem concerns relate to the short-term impacts and the long-term evolution and use of the site by various fish and wildlife species (i.e., controversy over whether endangered species habitat [marsh] should take priority over migratory waterfowl habitat [ponds] and interim losses of marsh habitat). These concerns were addressed through the contributions of many ecologists and planners who participated in the development of a detailed monitoring and adaptive management plan.

1.6 Overview of Responses to Comments

The regulations for implementing CEQA and NEPA direct the lead agencies to respond to substantive public comments on the Draft EIR/EIS. All comments received during the comment period are responded to in this Final EIS. The range of responses includes requiring specific mitigation measures, modifying alternatives, supplementing analyses, making factual corrections, and explaining why comments do not warrant further agency response. The Final EIS incorporates changes based on public and agency comments and minor clarifications by the project sponsors.

Chapter 2

Master Responses

2.1 Introduction

This chapter provides a series of responses to the key issues or concerns raised in multiple comment letters. The "Master Responses" are written to provide a detailed response to the issues and identify whether the project sponsors have integrated additional changes into the Final EIS. Changes to the Final EIS are illustrated in underline for new text and strikeout for deleted text.

2.2 Master Response 1. Habitat Evolution

Several commentors recommended the project sponsors provide additional clarity on the habitat evolution process, including more detail on the habitat evolution process within the ponds, information on the assumptions that were used in the analysis, a discussion of the variation that could occur in long-term habitats, and more detail on the specific ecological benefits that are expected to arise from restoration. The following information was added to the Final EIS in Section 2.5.4.1:

Habitat Evolution in Ponds 3, 4, and 5

Habitat evolution in the project area is dependent on a variety of opportunities and constraints (Philip Williams and Associates 2002c). The opportunities that lend themselves to restoration of the site include:

- hydrologic connection to tidal waters,
- suspended sediment supply,
- natural vegetative process and local seed sources,
- existence of historical antecedent channels,
- site elevations conducive to marsh vegetation establishment, and
- connectivity with existing marsh.

The site constraints that could affect habitat evolution in the ponds include:

- subsided ground elevations below vegetation colonization elevations,
- availability of sediment as a limiting factor,
- loss of existing habitat,
- limitations to natural channel formation such as borrow ditches or hardened pond bottoms,
- flooding and infrastructure,
- levee stability,
- construction access,
- pond and tidal channel sediment characteristics,
- project size, and
- proposed Cullinan Ranch restoration.

Detailed information on each opportunity and constraint was developed and used for the restoration design process in an effort to estimate future conditions. It is predicted that the ponds will contain a full range of subtidal, microtidal, and tidal habitats depending on local elevations, tidal exchange, sediment deposition, grading, vegetation colonization, and other factors.

Modeling Methods and Assumptions

The methods and assumptions behind the analysis of the evolution of restored tidal wetland habitat are provided in *Napa River Salt Marsh Restoration Habitat Restoration Preliminary Design Phase 2 Stage 2 of the Hydrology and Geomorphology Assessment in Support of the Feasibility Report* (Philip Williams and Associates 2002c). The analysis was conducted for both pond interiors and major slough channels and consisted of a series of spreadsheet models that accounted for initial pond elevations, sedimentation, and vegetation colonization rates. The assumptions for pond interior restoration, specifically the sedimentation and vegetation colonization rates, were made following an extensive literature review, input from restoration planners, lessons from other restoration projects, and an analysis of the accuracy of the model predictions (i.e., a sensitivity analysis). The assumptions for the evolution of major slough channels focused on fringe marsh loss by slough channel erosion and rates of channel scour; these assumptions were made based on similar review of literature, consultation with experts, and lessons from other restoration projects. The Napa Sonoma Marsh Restoration Group and the Restoration Technical Advisory Group (RTAG) were involved in reviewing and approving the methods and assumptions.

Modeling Sensitivity and Habitat Variation

The modeling effort represents predicted future habitat evolution given many variables. PWA conducted a sensitivity analysis on variables such as tidal damping, suspended sediment, wind-wave agitation, and channel erosion to determine the extent that these variables would lead to faster or slower marsh evolution. This analysis revealed that the proposed project tends to be optimistic in predicting marsh evolution, but that substantial areas of marsh will evolve even under conservative assumptions. Based on the sensitivity analysis, it is clear that the habitat mix associated with each habitat restoration option provides an estimate of the future conditions, but precise habitat acreage cannot be calculated. This is primarily because the restoration of natural marsh habitat relies on complex (i.e., multi-variate and non-linear) physical and biological processes that are inherently difficult to model and quantify with accuracy (Philip Williams and Associates 2002c).

Ecological Benefits

Irrespective of the exact number of acres of each habitat type that evolves, all habitat types will provide substantial ecological benefits. Subtidal and intertidal habitats will provide substantial benefits for invertebrates, fish, and some water birds. Lower marsh and middle marsh will also provide benefits for tidal marsh species, including birds and small mammals. There remains some uncertainty about the exact species composition and densities that will use the site; however, long-term monitoring will help resolve these questions. Furthermore, the project is designed to allow restoration of the site with a minimum of constructed features, allowing natural ecological processes to drive future site evolution.

2.3 Master Response 2. Bittern Dilution

Several commentors raised concerns about the length of time required to remove bittern from Pond 7. Bittern is the material left over after sodium chloride (common salt) is harvested. Sodium chloride is harvested at salinities between 360 and 395 ppt, and full strength bittern typically has a salinity in excess of 390 ppt. Common ions found in bittern include magnesium, chlorine, bromine, iodine, and lesser amounts of sodium, calcium, and iron. Comments focused on potential options to accelerate the removal of bittern, bittern toxicity in the environment, and alternative methods for the reduction of bittern.

The latest estimates indicate that salinity reduction in Pond 7 would require much less time than initially predicted, 8 to 10 years, rather than 30 to 50 years to achieve ambient salinity as previously calculated in the Draft EIR/EIS. The change in estimated time results from using a mass-based rather than a flow-based discharge restriction.

Based on toxicity studies, the regulatory agencies have indicated that bittern discharge from Pond 7 must be limited to 1% of the total flow from the Upper Ponds. While this restriction implies a certain mass removal (based on the Year 1 bittern concentration and flow), in earlier iterations of the Corps's Draft Feasibility Report and Draft EIR/EIS, a flow-based discharge restriction equal to the Year 1 flow was assumed to apply throughout the life of the project. This flow-based approach resulted in very long time periods before bittern would be reduced sufficiently to create habitat value in Pond 7. Bittern removal using a flow-based discharge restriction requires a long time because as the bittern concentration in the pond drops, less and less bittern is removed each year.

Assuming that a constant mass of bittern (under a mass-based discharge restriction) can be removed each year means that the allowable flow discharged from Pond 7 can increase as the concentration of bittern in the pond decreases, resulting in a shorter bittern removal period than previously expected.

2.3.1 Concentration of Bittern in the Receiving Water

Discharge of bittern must not have any adverse effects at the discharge location. The current allowable discharge forecasts are based on the assumption that the maximum bittern discharge rate is 1% of the total volume of water/brine discharged to Napa Slough. This estimate is based on a variable discharge flow scenario, in which the total flow from Pond 7 is allowed to increase in direct proportion to the amount of bittern removed (e.g., when the amount of bittern in the pond has been reduced by half, the total flow from Pond 7 can be doubled). This scenario reduces the time required to complete salinity reduction in the pond.

The 1% bittern in effluent standard is based on testing of a wide range of organisms in 1993. The salinity of the bittern tested in 1993 is not available; however, it is likely to have been full-strength bittern, as Cargill had just recently concluded operations at the site. More recent testing (May 2002), also referred to in the Draft EIR/EIS, Section 4.1.4.5, indicates that higher discharge rates may be feasible. The salinity of the bittern tested more recently was 310 ppt, indicating that the Pond 7 salinity was less than that of full-strength bittern. This may account for the apparent decrease in toxicity observed between 1993 and 2002. The lower concentrations in Pond 7 are most likely a reflection of the seasonal dilution that occurs as a result of rainfall.

Modeling conducted by the Coastal Conservancy last summer indicates that the dilution ratio achievable at the discharge (near-field dilution) varies greatly during the tidal cycle (ranging from an estimated threefold dilution at slack low tide to more than 15-fold dilution at maximum tidal currents during the initial phases of the discharge). Modeling further indicates that there is an average far-field (away from the discharge location) dilution in the slough system of about 10:1. In other words, a 1% bittern concentration in the effluent leads to a bittern concentration of approximately 0.1% in the far-field.

2.3.2 Increasing Rates of Bittern Discharge

When the anticipated bittern removal period was long, commentors requested analysis of other ways to increase the rates of bittern discharge. Potential options to increase the bittern discharge rate that were examined during alternative formulation included physical removal of the bittern, discharge of diluted bittern to San Pablo Bay, and mixing bittern with high salinity brine to reduce toxicity. Physical bittern removal was determined to be uneconomical (even the most cost-effective approach would double the cost of bittern removal compared to the proposed approach) and would have potential environmental impacts associated with dumping bittern at sea and physically moving the bittern from the pond into a barge. Testing indicated that mixing bittern with high salinity brine did not reduce the toxicity sufficiently to allow an increase in discharge rates (GAIA 2002). The option of discharging bittern to San Pablo Bay was retained because it reduces the time required to complete salinity reduction in Pond 7. However, this is also the most costly approach and results in bittern being discharged to Ponds 1, 1A, 2, 6, and 6A, all at concentrations exceeding the 1% effluent target.

The commentors suggested that a greater rate of bittern discharge may be feasible if near-field dilution at the discharge is taken into account (i.e., if the effluent is discharged at a concentration exceeding 1% and that the 1% target is achieved after allowing for dilution in the receiving water). However, while additional dilution of the discharge is provided by the system (as discussed earlier), rather than assuming that a 1% concentration of bittern is also acceptable in the slough system, the project sponsors intend to retain the dilution provided in the far-field as a margin of safety to compensate for potential uncertainties in the modeling and testing, and to minimize adverse effects in the near-field (zone of initial dilution).

Another alternative suggested by the commentors was to move the bittern to the east side of the Napa River. This suggestion is not feasible. While this approach would accelerate restoration of Pond 7, it would create the exact same bittern removal concerns for the new storage location. In addition, the transfer of bittern to the east side of the river either would require costly construction of a pipeline or would spread the bittern through the entire canal between Pond 7 and the pipeline leading under the Napa River. Furthermore, while the land on the east side of the Napa River is now owned by DFG, Cargill is currently removing stockpiled salt in preparation for restoration of the property. This process requires access to all the ponds, including the wash pond, for approximately the next 7 years (Ransom pers. comm.). Using one or more of the ponds on the east side of the Napa River to store bittern would simply delay the restoration process for that project.

A third option suggested by commentors is constructing a pipeline from Pond 7 directly to San Pablo Bay, and then discharging more-concentrated bittern directly to San Pablo Bay. This approach would avoid impacts on the lower ponds associated with Salinity Reduction Option 2 but would result in discharge of more-concentrated effluent. This option was considered infeasible for several reasons. First, the cost of constructing and operating such a system would be

much greater than the costs associated with the other salinity reduction options. The costs would be associated with the multiple miles of pipeline itself, the chemically resistant materials required for the pipeline, the cost of constructing in areas that are not land-accessible (Ponds 6, 6A, and 2), the cost of boring through or under numerous levees (or creating engineered footings for an elevated pipeline), and the cost of pumping the heavy effluent from Pond 7 into San Pablo Bay. In addition, to ensure sufficient dilution, the discharge pipeline most likely would have to be extended to the deepwater channel (the relatively concentrated brine could not be discharged into the very shallow areas of San Pablo Bay immediately south of the project area). This would further increase costs and construction challenges. Secondly, the environmental effects of constructing and operating such a pipeline would be significant for the reasons just discussed. Thus, this approach was not incorporated into any alternative.

Throughout the entire project, the project sponsors will monitor potential impacts associated with the release of diluted bittern to Napa Slough to ensure that the discharge does not cause adverse effects. If ongoing monitoring indicates that higher concentrations of bittern in the discharge are acceptable, the higher concentrations will be used and would be increased according to allowable discharge limits.

2.3.3 Clarifying Information for the Final EIS

Based on the information above, following clarifying information was added to Section 2.4.4.1 of the Final EIS:

Discharge of Diluted Bittern to San Pablo Bay

Another bittern dilution alternative considered was construction of a pipeline from Pond 7 directly to San Pablo Bay. This approach would result in discharge of more-concentrated effluent directly to San Pablo Bay. This option was considered infeasible for several reasons. First, the cost of constructing and operating such a system would be much greater than the costs associated with the other salinity reduction options. The costs would be associated with the multiple miles of pipeline itself, the chemically resistant materials required for the pipeline, the cost of constructing in areas that are not land-accessible (Ponds 6, 6A, and 2), the cost of boring through or under numerous levees (or creating engineered footings for an elevated pipeline), and the cost of pumping the heavy effluent from Pond 7 into San Pablo Bay. In addition, to ensure sufficient dilution, the discharge pipeline most likely would have to be extended to the deepwater channel (the relatively concentrated brine could not be discharged into the very shallow areas of San Pablo Bay immediately south of the project area). This would further increase costs and construction challenges. Secondly, the environmental effects of constructing and operating such a pipeline would be significant for the reasons just discussed. Thus, this alternative was eliminated.

Mixing Bittern with High Salinity Brine to Reduce Toxicity

Testing indicated that mixing bittern with high salinity brine did not reduce the toxicity sufficiently to allow an increase in discharge rates (GAIA 2002); therefore, an alternative consisting of mixing bittern with high salinity brine was eliminated. (These results are discussed in more detail in Chapter 4, "Water Quality," Section 4.1.4.5).

Move Bittern to East Side Ponds

Because of the recent acquisition of the east side Napa River salt ponds by DFG, a new alternative has become available. This alternative consists of physically moving bittern from Pond 7 to one or more ponds on the east side of Napa River. However, moving bittern from Pond 7 to the wash ponds on the east side of the Napa River was deemed infeasible. While this approach would accelerate restoration of Pond 7, it would create similar bittern removal concerns for the new storage location. In addition, the transfer of bittern to the east side of the river either would require costly construction of a pipeline or would spread the bittern through the entire canal between Pond 7 and the pipeline leading under the Napa River. Furthermore, while the land on the east side of the Napa River is now owned by DFG, Cargill is currently removing stockpiled salt in preparation for restoration of the property. This process requires access to all the ponds, including the wash pond, for approximately the next 7 years (Ransom pers. comm.). Using one or more of the ponds on the east side of the Napa River to store bittern would simply delay the restoration process for that project.

Table 17-2 was also revised to indicate that Pond 7 salinity/bittern would be reduced in less than 10 years.

2.4 Master Response 3. Adaptive Management

Several commentors requested that the adaptive management program be made more explicit and identify specific success criteria for adaptive management. The Coastal Conservancy, DFG, and the Corps convened a monitoring and adaptive management technical advisory group that included United States Geological Society (USGS), RWQCB, BCDC, U.S. Fish & Wildlife Service (FWS), and Bay-Delta Authority staff on July 15, 2003 to discuss identification of success criteria and project hypotheses, as related to monitoring requirements and conditions for implementing adaptive management actions. The Monitoring and Adaptive Management Plan was revised after the meeting. Figures 2-29 and 2-30 were added to the Final EIS to help clarify the adaptive management process.

The phasing of the project is designed to progressively learn about habitat evolution and make improvements or adjustments as needed. Specific hypotheses were identified for salinity reduction, tidal marsh restoration, and

managed pond maintenance. Specific success criteria were also identified to support or disprove the project hypotheses. These criteria include:

Water Quality

- Salinity in Ponds 3, 4, 5, 6, 6A, 7, 7A, and 8 is reduced to salinity levels that meet discharge criteria as established by the RWQCB and allow for tidal restoration or continued management as ponds.
- Applicable surface water quality standards as established by the RWQCB are achieved in the receiving waters.

Wildlife

- The project area provides beneficial wetland habitat for an array of targeted native wildlife species, resulting in a net increase in biological diversity and productivity.
- Invasive plant species and introduced predators are not negatively affecting populations of targeted native wildlife.

Marsh Evolution

- A stable sediment deposition process is established in the ponds opened to tidal action, and quantifiable evolution to tidal marsh habitat is occurring in Ponds 3, 4, and 5.
- Fringe tidal marsh that is lost as a result of widening external slough channels is replaced by the formation of new vegetated tidal marsh within the ponds opened to tidal action.

2.5 Master Response 4. Future Public Involvement

Several commentors requested to be kept apprised of the project development and asked about future public involvement opportunities. The project sponsors will continue to keep the public apprised of project development by publicizing the project through mass media outlets, mailing to members of the public and others listed in the project sponsor's database, providing opportunities for commenting during the permit process, and convening meetings of the Napa-Sonoma Marsh Restoration Group (NSMRG). Remaining formal public involvement opportunities remains when the San Francisco Bay RWQCB permit is issues and the Corps issues the Final EIS.

2.6 Master Response 5. Land Exchange Alternative

Several commentors suggested that a land exchange alternative should have been pursued more rigorously. These commentors recommended exchanging Pond 2 in the project area with a portion of Cullinan Ranch because portions of Cullinan Ranch are deeply subsided and may be more readily maintained as deepwater pond habitat. While this concept has merit, at least in the short-term sense, it may be problematic to implement over the long term and is not supported by the USFWS. For example, long-term maintenance of a deepwater pond on Cullinan Ranch adjacent to an SR 37 levee may be problematic because of wind-wave erosion. Management may also preclude hunting because of proximity to SR 37. The USFWS expects that in the long term, shallower ponds or marshes on Cullinan Ranch would be easier to maintain. In addition, the USFWS's acquisition of Cullinan Ranch was intended to preserve or provide habitat for endangered species, specifically the salt marsh harvest mouse and California clapper rail, and prevent future development of the site that would destroy that habitat. Tidal restoration is needed to provide such endangered species habitat. There were no time constraints placed on future restoration processes themselves, and the USFWS believes their proposed restoration plan for Cullinan Ranch will allow a long-term progression from deepwater tidal pond to shallow tidal pond to tidal marsh habitats.

2.7 Master Response 6. Recycled Water and Growth Inducement

Several commentors expressed concerns that the recycled water pipeline in the Water Delivery Option would induce growth in the North Bay area. Section 18.3.3 of the Final EIS discusses the potential for urban growth–inducing impacts in more detail:

SVCSD, NSD, and CAC Waste Water Treatment Plants (WWTPs) would be contributing their recycled water to a pipeline designed to put this water to a beneficial use. The proposed project is not proposing to expand their service areas or otherwise expand their treatment facilities. These WWTPs have undergone appropriate CEQA analysis for past facility expansions and are not currently constrained in their operations besides the conditions stipulated in their NPDES permits. In summary, construction of the pipeline and use of recycled water for the project would not induce urban growth because the WWPTs are not increasing discharges beyond what they could already be discharging.

Agricultural water users in the North Bay region do not have a reliable water supply. Groundwater supplies are limited by water quality concerns and lack of reliable quantities. Surface water is limited primarily by reliability. These constraints affect existing vineyards and also have prevented some nonirrigated hayfields from converting to irrigated agriculture.

When the project would no longer need the recycled water for salinity reduction, the WWTPs in the Joint Powers Authority (JPA) would offer this water to local farmers as irrigation supply. Agricultural users would likely use this water because of the increase in reliability over existing sources. Some areas may convert from nonirrigated crops to irrigated crops, but no conversions from agriculture to other uses (e.g., residential, commercial, or industrial) are anticipated. A more reliable agricultural supply would likely help stabilize agriculture in the region by allowing conversion to high value crops instead of causing these types of conversions.

As Section 18.3.3 explains, the potential conversion from hay farming or grazing land to vineyard would not cause substantial environmental effects; therefore, these impacts would be less than significant.

2.8 Master Response 7. Recycled Water and Water Quality

Several commentors were concerned that the discharge of recycled water to the ponds in excess of the amount needed for salinity reduction could degrade habitat values within the ponds. Additionally, recycled water discharges after the end of the salinity reduction phase could cause water quality problems in the marsh or Napa Slough.

The project sponsors are proposing a measured and controlled discharge of a mix of, Pond 7 water, Pond 7A water, Pond 8 water, and recycled water into Napa Slough. These discharges will be carefully monitored to ensure they do not exceed RWQCB standards that are protective of natural resources. Also, reclaimed water would not discharge directly into the wetlands and would be unlikely to affect marsh habitat diversity and quality.

The JPA members would not deliver water to the marsh after the salinity reduction phase is complete. The members would add Napa Slough as an alternative discharge point and would not directly discharge to the marsh. Therefore, the WWTPs would not be forced to discharge into Napa Slough if they have excess recycled water but could discharge at existing discharge points. Commentors expressed additional concerns that the delivery would need to continue because of increased growth and associated increases in wastewater generation. The JPA members, however, would deliver this water to local agricultural users after the salinity reduction phase is complete. As discussed above, agriculture in this area lacks a reliable water supply. At the 2003 public meeting, members of the public expressed a strong desire for having the recycled water made available for agricultural use as soon as possible. The JPA members anticipate that all recycled water would be used by agricultural sources because it is more reliable than existing sources.

Chapter 3

Responses to Comments

3.1 Introduction

The project sponsors received 13 comment letters on the Draft EIR/EIS. This chapter provides individual responses to each comment received on the Draft EIR/EIS. It is organized with responses to letters received from federal agencies, state agencies, local agencies, nonprofit organizations, and individuals. All commenting parties and the associated comment letter numbers are shown in Table 3-1.

Table 3-1. Commentors and Comment Letter Numbers for the Final EIS for the Napa Salt Marsh Restoration Project

Letter Number	Commentor
1	U.S. Department of Commerce, Office of the Assistant Secretary for Oceans and Atmosphere, Joyce Wood, May 12, 2003
2	U.S. Department of Interior, Office of the Secretary, Office of Environmental Policy and Compliance, Patricia Sanderson Port (Steve Schoenberg), June 12, 2003
3	U.S. Environmental Protection Agency, Lisa Hanf, June 13, 2003
4	CALFED Bay-Delta Program, Dan Ray, June 19, 2003
5	California Regional Water Quality Control Board, San Francisco Bay Region, Ron Gervason (Tobi Tyler and Andree Breaux), June 17, 2003
6	Department of Conservation, Division of Land Resource Protection, Dennis O'Bryant, June 3, 2003
7	San Francisco Bay Conservation and Development Commission, Michelle Burt Levenson, June 30, 2003
8	San Francisco Bay Trail, Laura Thompson, June 16, 2003
9	Sonoma County Water Agency, Sean White, June 12, 2003
10	San Francisco Bay Citizens Committee to Complete the Refuge, Florence LaRiviere, June 16, 2003
11	Marin Audubon Society, Barbara Salzman, June 16, 2003
12	Peter R. Baye
13	Mike Morris

3.2 Federal Agencies

Comment Letter 1

UNITED STATES DEPARTMENT OF COMMERCE
Office of the Assistant Secretary for
Oceans and Atmosphere
Washington, D.C. 20230

May 12, 2003

Ms. Amy Hutzel
California State Coastal Conservancy
1330 Broadway
Oakland, California 94612

Dear Ms. Hutzel:

Enclosed are comments on the Draft Environmental Impact Statement for Napa River Salt March Restoration Project EIR Oakland, California. We hope our comments will assist you. Thank you for giving the opportunity to review this document.

Sincerely,

Joyce Wood
NEPA Coordinator

Enclosure

MEMORANDUM FOR: Joyce Wood
Director, Office of Strategic Planning

FROM: Charles W. Challstrom
Director, National Geodetic Survey

SUBJECT: DEIS-0305-01 Napa River Salt Marsh Restoration Project EIR
Oakland, California

The subject statement has been reviewed within the areas of the National Ocean Service's (NOS') responsibility and expertise and in terms of the impact of the proposed actions on NOS activities and projects.

All available geodetic control information about horizontal and vertical geodetic control monuments in the subject area is contained on the National Geodetic Survey (NGS) home page at the following Internet World Wide Web address: http://www.ngs.noaa.gov. After entering the NGS home page, please access the topic "Products and Services" and then access the menu item "Data Sheet." This menu item will allow you to directly access geodetic control monument information from the NGS data base for the subject area project. This information should be reviewed for identifying the location and designation of any geodetic control monuments that may be affected by the proposed project.

If there are any planned activities which will disturb or destroy these monuments, NGS requires not less than 90 days' notification in advance of such activities in order to plan for their relocation. NGS recommends that funding for this project includes the cost of any relocation(s) required. 1-1

For further information about these geodetic monuments, please contact Rick Yorczyk; NOAA, NOS, National Geodetic Survey, N/NGS; SSMC3 8636, 1315 East West Highway; Silver Spring, Maryland 20910; telephone: 301-713-3230 x142; fax: 301-713-4175.

Letter #1. U.S. Department of Commerce, Office of the Assistant Secretary for Oceans and Atmosphere

Response to Comment Number 1-1

It appears that several geodetic controls are located within the project area; precise locations will be verified in relation to construction plans as part of project design. The National Ocean Service will be notified at least 90 days in advance of the potential relocation of these controls, and relocations will be paid for as part of the project.

Comment Letter 2

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1111 Jackson Street, Suite 520
Oakland, CA 94607

12 June 2003

ER: 03/417

Shirin Tolle
U.S. Army Corps of Engineers, San Francisco District
333 Market St., 7th Floor
San Francisco, CA 94105

Subject: Departmental comments on the Draft Feasibility Report and Draft Environmental Impact Statement/Report (DEIS/R) on the Napa River Salt Marsh Restoration Project

Dear Ms. Tolle:

The Department of the Interior has received and reviewed the subject document and has the following comments to offer.

FWS General Comments

Using Diffusion to Enhance Dilution: The Department concurs with the general theme of this DEIS/R that the proposed restoration would result in an increase in the amount of higher value tidal habitats at the project site, at the expense of non-tidal ponds that are likely to degrade due to lack of salinity control. The proposed project represents a relatively rare opportunity to restore tidal marsh on this large of a scale, where the restoration will not only re-establish vegetation, but also the tidal hydrodynamics of the slough/channel network.

Although the preferred alternative stated in the document emphasizes an outcome of mixed tidal marsh/non-tidal ponds habitat, it appears this is actually an initial goal subject to modification, depending on the outcome of monitoring of early phases of the project and assessment of regional wildlife needs. This monitoring is described in Appendix G, Monitoring and Adaptive Management. The document relies heavily on the results of a simplified model of habitat evolution in which actual conditions (sediment supply, wind resuspension) may differ from those assumed. Nevertheless, the Department would support the project with a much less optimistic outcome than the model prediction because this would still represent an improvement over the near-term (5-10 years), and because without the proposed management the existing habitat would degrade due to excessive salinity and eventual conversion to bittern. 2-1

The Department's primary concern with the proposed project is that it is a fixed operation with respect to the rate of salinity reduction in the upper ponds, and that it assumes an exceptionally 2-2

long period, 30-50 years to reduce the bittern of one pond (Pond 7). Ponds 7a and 8 will be used for water supply and diluting discharge water over this same 30-50 years.

Although the proposed conservative discharge standard (100:1 dilution before diffusion) may minimize impacts, a standard to which we do not object, this standard would be achieved at the expense of deferring wildlife-based management of these ponds for many decades, while simultaneously imposing additional costs and risk of failure over the life of the operation.

This is complicated by the fact that the proposed operation would use recycled water as bittern diluent. Using recycled water in this manner has not been shown to be successful in achieving standards stated for this project. The Department recommends, therefore, the operation be designed to allow for a flexible salinity level of the discharge. 2-2 cont'd

Specifically, we recommend the operation be designed to allow reduced dilution and increase discharge rates, with a goal of completing discharge of all bittern materials from Pond 7, within 10 years. This flexibility of the discharge salinity and discharge rate would of course need to be based on short-term test releases and monitoring of key biotic parameters.

If the results of these tests support increased discharge salinity and rates, the discharges could be varied seasonally in a manner to avoid or minimize negative effects to sensitive species or life stages. Incorporating this proposal into project design seems reasonable, given that monitoring and adaptive management plan in Appendix G is still in draft form.

Several factors bear on our recommendation to expedite discharge of bittern, in light of its potential environmental consequences: (1) diffusion and mixing energy are likely to increase effective dilution by a factor of at least 10-fold; (2) the diluted material does not, to our knowledge, contain materials that are recalcitrant in the environment or would cause an adverse effect through bioaccumulation; (3) information on the effect of bittern release in such a test program, using recycled water, may be useful in deciding the means to rehabilitate an even larger area of salt ponds, with considerably more bittern stores, in the anticipated South San Francisco Bay Salt Pond Restoration; and (4) any observed adverse effects from a test program would be temporary as the discharge would be completely dispersed within one wet season.

Availability of nesting habitat for colonial waterbirds: Because of limited habitat in North San Francisco Bay colonial waterbirds are concentrated in the Napa River Marsh area. Although there appear to be opportunities to include habitat enhancement for nesting waterbirds in the alternatives described in this EIS, none has been explored. We recommend at a minimum the proposed action include creation of islands in ponds that will be managed as open water habitat to provide protected nesting areas for colonial waterbirds. 2-3

Specific Comments

Page 2-29, paragraph 3 (Operation and Maintenance): The most critical assumption the DEIS/R makes to support the need for long-term (30-50 years minimum, see p. 4-29 comment, below) operation and infra-structural maintenance of facilities used to dispose of bittern in Pond 7, is 2-4

that the dilution at the discharge point must be nontoxic as indicated by chronic (7-day) exposure of test organisms. Using this criterion as a guide, the bittern must be diluted at least 100:1.

We note that the concentration of bittern in the receiving water body is a function of both the dilution ratio *and* diffusion of the compound during discharge. Diffusion can be enhanced to a factor of at least 10 depending on the device used to release the material (diffuser) and the mixing energy of the environment, which in this case would result in concentration of bittern of no more than 1 part per thousand. Tidal exchange would further diminish ambient concentrations a short distance away from the discharge point.

As we stated in our general comments, the proposed fixed low rate of bittern discharge may result in unnecessary delay of restoration and ideal maintenance of all upper ponds (Pond 7 due to bittern, Ponds 7a and 8 due to contribution and management of dilution water).

The 100:1 dilution assumption requires application of results from standard test organisms to the diversity of fauna in the Napa River estuary, and implicitly assumes that any level of adverse impact is unacceptable. On the one hand, if the project proponents contend that bittern is so toxic that it must be discharged at an effective concentration 10-fold below the effects threshold, it probably should not be released in a sensitive estuarine environment at all, and an alternative discharge point should be considered.

2-4 cont'd

In the Fish and Wildlife Service's draft Fish and Wildlife Coordination Act report, it is recommended that project proponents investigate such an option considered during acquisition of the site in the early 1990s. This alternative would pipe the material (possibly in dilute form) for discharge in San Pablo Bay. Although this measure was discussed at project meetings, the rationale for elimination for further study is not disclosed in the DEIS/R.

On the other hand, if bittern is not demonstrated to have such toxicity, or effects are at a level considered acceptable by regulatory agencies, it should be discharged in a more expeditious manner. This would facilitate restoration of the entire site and transition to status where only minimal maintenance of facilities and infrastructure would be necessary.

We recommend, therefore, that the final EIS include a discussion of a flexible bittern discharge rate where higher releases (lower initial dilution, but effective dilution with diffusion still greater than 100:1) might be considered, contingent on short-term (several week) test releases.

During such releases, biological monitoring could be intensified and tailored to detect any potential adverse effects. Such a test release could compare, for example, biotic responses of recycled water alone and recycled water with bittern, to periods with release of slough water, or no release. We also recommend the final EIS discuss how diffusion reduces environmental concentration. Higher discharge rates (lower dilution) in the range foreseen with a flexible operation (e.g., up to 10:1 dilution, before diffusion) should be studied using near-field models, so that the surface area of concentrations exceeding the toxic threshold (less than 100:1, including diffusion) can be described. We recommend the final EIS also discuss the extent to which the alternative of pipe transport of bittern to San Pablo Bay was considered, and the basis

for its elimination from further study.

Page 2-35 (2.5.3 Water Delivery Option): Although the DEIS/R indicates an annual quantity of 6,000-7,000 acre-feet of recycled water, the timing or flexibility to store it (see p. 4-33 comment, below) are not stated and we recommend they be discussed in the final EIS. 2-5

Page 2-41 (2.5.3.2 Water Delivery Program Component): The DEIS/R mentions potential additional sources of recycled water, stating there is "considerable uncertainty" in the quantities of this water, or when it might be available. It seems to be very possible to assume some range of potential volumes of water would be available from project sponsors. We recommend the range of volumes of recycled water from additional contributors be discussed in the final EIS, within an order of magnitude or less. 2-6

Page 2-49 (Habitat Evolution): This section refers to detailed modeling to provide an estimate of habitat evolution used in the DEIS/R to support conclusions regarding project benefits and effects. The model and any estimates derived from it, we expect, are based on assumptions that fix key input parameters such as sediment supply and wind resuspension that are largely a function of local meteorology, and vary over time. Consideration of this variability is important in characterizing the habitat evolution; for example, considerably greater accretion rates may be expected during wetter years. These factors are briefly mentioned in the Monitoring and Adaptive Management Plan that appears in draft form, as an appendix. We recommend the final EIS fully review the basic assumptions of the models, and discuss the ranges of uncertainty of both net sediment accretion (i.e., accreted sediment depth per year) and the period (years) to attain minimum elevation for vegetative colonization. 2-7

Page 4-22 (4.1.4.5 Toxicity of Pond 7 Bittern and Brine Mixtures): The DEIS/R mentions recent tests showed a higher concentration threshold for effects of test organisms to bittern, and indicates this may be the result of salinity reduction since the first tests, but does not mention salinity of the latest tests; the range shown in Figure 2-3 of the DEIS/R (135-447 parts per thousand) is broad. We recommend the final EIS specify salinity of the latest tests and explain the reason for salinity reduction over time (e.g., wet period precipitation, pumped water). Also, since recycled water is being proposed for use as a diluent we recommend the final EIS mention any tests showing effects of recycled water alone (or in combination with bittern), or otherwise discuss potential for such effect. 2-8

Page 4-29 (4.2.3.2 Impact WQ-3: Increase in salinity in the Napa River): Here and earlier (p. 2-30), the DEIS/R combines salinity and ionic imbalance issues (bittern disposal) as if one, concluding that completing salinity reduction to ambient concentration may (will) take 30-50 years. The context of "ambient" salinity is unclear, not only because it varies considerably over daily/seasonal cycles, but also because the parameter of importance is reduction in bittern concentration below the toxic effects threshold, which the DEIS/R states earlier (p. 2-29) is 1 percent. The basis of the 30-50 year estimate for disposal of bittern is also uncertain. The document made available to the Fish and Wildlife Service on long-term bittern reduction (Figure 11 *in* PWA Memorandum Reference # 1571-03, dated June 5, 2002; not included in appendices to DEIS/R) shows a 5 percent bittern fraction remaining after 40 years of dilution under the 2-9

project scenario. This exceeds the toxic effects threshold, and the shape of the curve indicates that achieving a release fraction below 1 percent would take much longer than 50 years.

We ask that the final EIS explain derivation of the 30-50 year (or other revised) estimate for salinity reduction, include a separate discussion of bittern effects, and include figures similar to that provided in referenced memorandum indicating how the bittern fraction would decline under the foreseeable range of disposal factors (dilution ratio, recycled water volume, diffusion, mixing, seasonal flushing etc). This information assists in understanding rationale for your conclusions. 2-9 cont'd

Page 4-33 (4.2.3.5 Impact WQ-6: Increase in....Constituents from Recycled Water): The document states that "RWQCB Resolution 94-086 would be applied," apparently suggesting that summer releases of recycled water would be made, notwithstanding potential effects of oxygen demand, algal growth, or other effects on background chemistry. It refers to mitigation measure WQ-3, but that measure is specific to salinity only, not the effect of nutrients that may be present in recycled water. We agree that since releases are currently made to the Napa River above the project, a similar release in Napa Slough - with same volume and timing - would have a similar effect. However, the project appears to divert a greater volume of recycled water to the Napa River basin, and possibly discharge it during summer; we ask that these differences from baseline conditions be explicitly described in the final EIS. 2-10

We also ask that the final EIS explain the context of the resolution mentioned, whether release of reclaimed wastewater is proposed during summer, and why. If, under without-project conditions, wastewater is stored and then released in winter, it is unclear why such storage and release could not be done with the project. Any specific studies supporting the conclusion that summer release of this recycled water would be benign, insignificant, or beneficial, would assist in understanding your rationale, while simultaneously providing support for your conclusions.

Page 5-11 (5.1.4.1 Vegetation Communities): The DEIS/R discusses open water only as it relates to "streams and creeks" crossed by the Water Delivery Option elements. Major tidal sloughs within Napa Marsh proper, however, are not discussed here or in the tidal marsh section. We recommend the final EIS discuss these as a separate section, as appropriate. 2-11

Page 5-14 (Abandoned Salt Ponds): The DEIS/R states that the salt ponds support few (vascular) plants; however, planktonic or periphytic algae may occur. We recommend the final EIS mention the general extent, or lack thereof, of non-vascular plant production. 2-12

Page 6-25 (6.1.4.7 Birds): Caspian Terns (*Sterna caspia*) are described as summer migrants Our understanding, however, is that this species has nested in pond 3 since 1989 (Goals Project 2000), and is currently nesting on eroded levees located within Pond 3 (D. Roby, pers. comm.).

In addition, nesting Forster's terns (*Sterna forsteri*) and double-crested cormorants (*Phalacrocorax auritus*) and roosting American white pelicans (*Pelecanus erythrorhynchos*) use this site as well. These three species were not identified as species that will be affected by this project. We recommend the final EIS identify colonial nesting waterbirds that will be affected by 2-13

this proposed project and assess environmental affects.

Page 6-40 (Beneficial Impact W-9: Increase in....Marsh Habitats): The DEIS/R indicates a gain in marsh habitats (upper and lower), without mentioning that there are early interim losses of outboard marsh and some offsetting gain of inboard marsh that are not concurrent with the bulk of the increase (primarily after 40 years) in marsh. While the early gains (in Pond 3) are relatively certain due to elevations near vegetation colonization thresholds, the later gains are more dependent on accretion at or above that assumed in the habitat evolution model. We recommend the final DEIS/R discuss the extent of temporary reduction in marsh habitat, and the uncertainty in later gains, relative to early gains within the ponds. 2-14

Page 6-43 (Impact W-12: Loss of Open-Water Habitat): The DEIS/R indicates losses of open-water habitat that were historically used by waterfowl, but within which use has declined in recent years. Under certain conditions, however, wildlife use may have remained high in some ponds due to transitional salinity states that resulted in temporary high productivity. Neither historical nor transitional states are the appropriate baseline on which to conclude an impact would occur with the project, because without the project these areas would soon have no value owing to excessive salinity. We recommend the final EIS emphasize that lack of salinity control is a progressive problem, and that quality will decline in future without the project. 2-15

Monitoring and Adaptive Management Plan (MAMP, Appendix G): We found the MAMP lacked explanation on how collected findings are translated into triggers for management actions. There are many potential reasons for some observations such as reduced wildlife use on the site that could be unrelated to project success (e.g., factors in breeding grounds for migratory species, concentrated use of alternative nearby sites due to wind protection/forage).

Except for macrophytic vegetation, most of the described biotic parameters and water quality indicators can change on a short-term basis due to meteorology, and changes may not be detectable for some parameters measured on a bi-monthly basis, or within a limited region. We recommend the MAMP be revised, with the intent of identifying measurable objectives that would accurately indicate quality and sufficiency of habitat for target wildlife guilds. Vegetative characteristics or forage organisms may serve to be better indices of potential habitat quality than use rates. 2-16

The DEIS/R (p. 6-43) identifies potential adverse effects of loss of open-water habitat, namely, to waterfowl and some specialized waterbirds adapted to high-salinity forage conditions. Since concentrated use is known to occur at other nearby marsh or open waters, it is unclear how monitoring that is restricted to the restored Ponds 3, 4, and 5 would bear on the question of the ultimate amount and condition of retained ponds.

The most appropriate context of the adverse effect on wildlife populations discussed in the MAMP would be for the North Bay as a whole; decisions on future phase design (e.g., Pond 6/6A) should be based on the sum of all biotic responses, and observations outside the project area, not an individual species' responses within the project area.

We do not believe the proposed project has a significant risk of failure. Rather, we believe there is considerable uncertainty in the outcome - with most conceivable outcomes expected to have large net benefits to at least one of several key wildlife guilds targeted for enhancement. Figure 1 of the MAMP (decision matrix) does include assessment of regional pond habitat as a deciding factor, but it is not clear to what extent this (or some other) program would conduct such an assessment, what characteristics would determine whether pond habitat is sufficient or not, or whether regional assessment of other key target habitat types (marsh, mudflat) would be considered in the decision process. We recommend the final EIS discuss how this need for region-wide assessment would be fulfilled, for both non-tidal ponds and other habitat types. 2-16 cont'd

Furthermore, it is unclear if current regional management strategy is to preserve existing levels of waterfowl and shorebird benefits throughout project construction, to accept some level of reduction in such benefits as a tradeoff for improved tidal marsh (on a interim or permanent basis), or to improve conditions for all guilds. Because this strategy may affect the course of later phases of the project, we recommend it be definitively stated in the final EIS.

In this context we note that a reduction in amount of pond habitat may be justified on several bases: (1) if quality of remaining ponds is improved by management actions such that benefits remain at least the same; (2) if current local pond areas are deemed in surplus wherein reduction would not result in realized impacts to reliant wildlife populations; (3) if regional non-tidal pond and other habitat (e.g., bay margins) is deemed sufficient such that wildlife would not be impacted; or (4) if management goals specify that smaller habitat units, dispersed

Some of these points are raised in the DEIS discussion on cumulative effects (p. 18-10, Impact Cu-7: loss of open-water habitat for migratory shorebirds and waterfowl).

References

Goals Project 2000. Baylands Ecosystems Species and Community Profiles: Life histories and environmental requirements of key plants, fish and wildlife. Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. P.R. Olofson, editor. San Francisco Bay Regional Water Quality Control Board, Oakland, Calif.

Daniel Roby. United States Geological Survey - Oregon Cooperative Fish and Wildlife Research Unit, Department of Fisheries and Wildlife, Oregon State University, Corvallis, Oregon.

You may direct questions regarding these comments to Dr. Steven Schoenberg, in our Sacramento Fish and Wildlife Service Office at (916) 414-6564.

Thank you for the opportunity to review this project.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

Cc: Director, OEPC, D.C.
Regional Director, FWS

Letter #2. U.S. Department of the Interior, Office of Environmental Policy and Compliance

Response to Comment Number 2-1

Comment noted. The project sponsors evaluated project alternatives that require various levels of intervention and management, and the preferred alternative allows for less intervention and management while providing a range of natural evolution of the site that meets the project objectives. Additional information on the assumptions in the model of habitat evolution and changes incorporated into the Final EIS is provided in Master Response 1. Habitat Evolution.

Response to Comment Number 2-2

The project sponsors, in conjunction with the California RWQCB San Francisco Bay Region, are currently evaluating ways to expedite the safe discharge of bittern as result of the project. As indicated in the cover letter for the Final EIS, the overall salinity reduction period for Pond 7 is substantially shorter than previously expected (less than 10 years, rather than 30 or more) because a mass-based discharge calculation rather than a flow-based restriction will be used.

As indicated in the letter from the RWQCB, there currently is not sufficient information available to support a greater discharge. Dilution rates are expected to range from a factor of 3 to 6 at low tide and up to 34 at high tide. The diffusers have to be designed for continuous discharge during all tidal phases. More aggressive discharges or diffusion is not currently being proposed because of potential water quality effects. Please also see Master Response 2. Bittern Dilution, which provides additional information on the evaluation of the discharge of bittern including dilution and diffusion and changes incorporated into the Final EIS. No bittern is proposed to be discharged in the South Bay restoration project, and therefore the data from this project will not be useful for a comparative analysis.

Response to Comment Number 2-3

Colonial nesting islands are not currently included as part of the project design. The project sponsors are not proposing to add these to the project at this time. DFG or the Corps may pursue it during the design phase or in the future.

Response to Comment Number 2-4

This comment focuses predominantly on issues related to bittern, bittern toxicity, dilution, diffusion, and alternative discharge considerations. The project sponsors have considered and analyzed these issues and are committed to

reducing the salinity and bittern concentration in Pond 7 as quickly as possible while ensuring protection of the environment and economic feasibility of the project. A detailed response to these issues, and related changes incorporated into the Final EIS, are provided in Master Response 2. Bittern Dilution.

Response to Comment Number 2-5

WWTPs will have ability to store recycled water in the event discharges are stopped. The participating WWTPs all have storage facilities. These ponds are used to store water during the summer when the plants have zero-discharge requirements, but the agencies would typically not need to operate in this way after the project is implemented. The plants would have more water available during the winter because of infiltration and inflow into their systems and because other local recipients would use some of the recycled water during the summer. The Final EIS includes this information.

Response to Comment Number 2-6

The draft Feasibility Report indicates that approximately 8,000 acre-feet per year of additional recycled water could be available if the wastewater treatments in the program component decide to participate. Actual amounts depend on participating WWTPs and are currently unknown. Up to 15,000 af/yr of recycled water could be made available under the water delivery program component based on estimates from SCWA.

Response to Comment Number 2-7

The habitat restoration modeling underwent substantial peer review and critique. The habitat restoration estimates are based on a set of assumptions detailed in the *Habitat Restoration Preliminary Design Phase 2 Stage 2 of the Hydrology and Geomorphology Assessment in Support of the Feasibility Study, Appendix C* (Philip Williams and Associates 2002c). The modeling effort was based on the experience of restoration professionals, literature reviews, and lessons learned from nearby restoration sites. Additional information on the evolution of habitats and range of uncertainty associated with the modeling effort was provided in the Final EIS and is described in detail in Master Response 1. Habitat Evolution.

Response to Comment Number 2-8

The most recently measured salinity levels in the ponds are provided below in Table 3-2. The salinity levels fluctuate tremendously depending on how much water is in the ponds. During this past winter salinity dropped because of precipitation. It can also drop by adding pumped water, though this ultimately raises salinity as the water evaporates leaving more salt behind. Recycled water

will only be directly used for make-up water in Pond 7. Most of the recycled water would be discharged directly to the mixing chamber, where it will be mixed with pond water and brine (and make up water). There are no tests to show bittern combined with recycled water prevents eutrophication, but no additional effects are expected based on studies to date (SCWA 2003). Furthermore, discharge limitations required by the RWQCB are expected to be protective of the aquatic environment. Therefore, no additional changes to the Final EIS are necessary.

Table 3-2. Recent Pond Salinity

	July 2003	March 2004
Pond 1	25 ppt	16 ppt
Pond 1A	36 ppt (beginning to drain because of levee work)	17 ppt
Pond 2	20 ppt	9 ppt
Pond 3	14 ppt	0 ppt
Pond 4	14 ppt near south siphon 37 ppt in north	22 ppt
Pond 5	113 ppt	22 ppt
Pond 6	200 ppt (estimated—gage dry)	22 ppt
Pond 6A	26 ppt	5 ppt
Pond 7	393 ppt pH=5	231 ppt pH=5-6
Pond 7A	67 ppt	38 ppt
Pond 8	21 ppt	3 ppt

Response to Comment Number 2-9

The project sponsors are continuing to evaluate the timeframe estimated to reduce salinity and bittern in Pond 7. As described in the Final EIS the timeframe is currently estimated at approximately 8–10 years and bittern releases would be subject to San Francisco Bay RWQCB discharge standards. The previous timeframe was based on the memorandum referenced (#1571-03). No additional changes to the Final EIS are proposed.

Response to Comment Number 2-10

Recycled water will be used to dilute bittern and will be discharged during the summer months according to RWQCB permit conditions. SCWA conducted a detailed study titled *The Use of Reclaimed Water for Enhancing and Creating Wetland and Wildlife Habitat: Efficacy and Effects, Hudeman Slough Mitigation and Enhancement Wetlands Case Study* (SCWA 2003). In this document,

SCWA determined that reclaimed water areas were ecologically comparable to other hydraulically managed or unmanaged areas. Dissolved oxygen (DO) and other water quality parameters did not suggest that areas managed with reclaimed water were more eutrophic than other hydrologically managed or unmanaged monitoring units. However, dissolved phosphates were detected in water quality samples collected in reclaimed water monitoring units. While the study evaluated discharges directly to tidal and managed wetlands, and discharges to the project area would be to Napa Slough (an area with greater mixing and less marsh), this study indicates that the effects of recycled water are minimal and careful management and monitoring will minimize the potential for adverse effects.

At this time the volume of recycled water being discharged into the Napa River basin would remain unchanged. The volume would be consistent with what is currently being discharged into the basin by CAC, NSD, and SVCSD. The timing of these discharges will shift slightly as recycled water will be used in the summer months to assist in the salinity/bittern reduction process. Quantities may be increased under the Recycled Water Delivery Program Component, but this will require subsequent environmental analysis. More detail cannot be provided at this time because of the uncertainty associated with the Recycled Water Delivery Program Component. The WWTPs are experiencing a lack of summer-season storage capacity and are looking to put the recycled water to beneficial uses. Use of recycled water for the project achieves both these purposes.

Response to Comment Number 2-11

Tidal slough information was added to the Final EIS. The new text is:

Tidal marsh vegetation communities are also represented in tidal sloughs. Tidal sloughs in the project area include Dutchman Slough, South Slough, China Slough, Devil's Slough, Napa Slough, Mud Slough, and Hudeman Slough as illustrated on Figure 2-2.

Response to Comment Number 2-12

Microbial and nonvascular plant production is an important part of the foodchain within these ponds. However, the general extent has been little documented. One study that was conducted documented plankton, and this study determined that these populations are tremendously dynamic (Takekawa et al. 2000). They will likely continue to be dynamic and productive in Ponds 2, 6, 6A, 7, and 8; the purpose of the adaptive management plan is to monitor changes in the project area over time. Productivity in Ponds 3, 4, and 5 will change to more estuarine species, offering different ecological benefits. Because of the limited information available on nonvascular plant production and ongoing monitoring to minimize or avoid an adverse effect, no changes to the Final EIS are proposed.

Response to Comment Number 2-13

Additional species information was added to the Final EIS, specifically identifying Forster's terns, double-crested cormorants, and American white pelicans as using the project area. The overall assessment of colonial nesting birds was not updated further because postproject habitat conditions will offer a suite of suitable habitats that are expected to improve overall existing conditions.

Response to Comment Number 2-14

The evolution of marsh communities is described in more detail in Chapter 5 on page 5-31. Even with the uncertainties associated with habitat restoration, the long-term evolution of marsh is expected to be substantially greater than existing conditions. Additional information regarding the evolution of habitats was added to the Final EIS as described in Master Response 1. Habitat Evolution. The following clarifying information was also added to the Final EIS on page 6-40:

after declining by approximately 100 acres during the first 20 years of restoration.

Response to Comment Number 2-15

Additional information was added to the Final EIS to clarify that this habitat would be lost without salinity control or restoration. The following information was added to the Section S.2 and Section 1.2 of the Final EIS:

the collapse of the pond system ecology in the absence of salt production or rehabilitation as tidal habitat;

Response to Comment Number 2-16

This comment addresses several issues related to monitoring and adaptive management, including the need for triggers for management action (i.e., success criteria), monitoring of waterbirds, and regional monitoring. The latest adaptive management plan includes a series of management hypotheses that will help determine the success of the project with respect to salinity reduction, tidal marsh restoration, and managed pond maintenance. Monitoring will occur not only in Ponds 3, 4, and 5, but also in all other ponds. This data collection effort will help place the project in the context of the North Bay as a whole. Regional analysis of suitable habitats continues to be conducted by USFWS, DFG, USGS, San Francisco Estuary Institute and others.

Comment Letter 3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

June 13, 2003

Ms. Shirin Tolle
U.S. Army Corps of Engineers, San Francisco District
333 Market Street
San Francisco, CA 94105

Subject: Draft Environmental Impact Statement (DEIS) for the Napa River Salt Marsh Restoration Project (CEQ#030192)

Rating: Lack of Objections (LO)

Dear Ms. Tolle:

The Environmental Protection Agency (EPA) has reviewed the above referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

EPA supports the goals and objectives of the proposed Napa River Salt Marsh Restoration Project. In our review of the document, we found that the DEIS sufficiently addresses the environmental impacts of the proposed alternative. As such, EPA has rated this document Lack of Objections (LO). EPA's rating and a summary of our comments will be published in the *Federal Register*. Please see the enclosed Rating Factors for a description of EPA's rating system.

While EPA has no objections to the proposed project, we request some clarification in the Final EIS regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board (RWQCB). Page 4-5 of the DEIS states that project sponsors do not anticipate the need for a NPDES permit from the RWQCB because the project is considered a long-term beneficial water reclamation and wetland restoration project. This statement seems inconsistent with Section 402 of the Clean Water Act which requires a permit for a discharging pollutants into surface waters. The RWQCB may agree that the project is beneficial, but would still issue a NPDES permit which reflects this conclusion. Permit requirements under the NPDES program should be more thoroughly and clearly discussed in the Final EIS. 3-1

We appreciate the opportunity to review this DEIS. When the Final EIS is released for public review, please send two copies to the address above (mail code: CMD-2). If you have any

questions, please contact me or Shanna Draheim, the lead reviewer for this project. Shanna can be reached at (415) 972-3851 or draheim.shanna@epa.gov.

Sincerely,

Sam Fujii, Acting for

Lisa B. Hanf, Manager
Federal Activities Office

Enclosures:
EPA Summary Rating Sheet

cc: Amy Hutzel, California State Coastal Conservancy

Letter #3. U.S. Environmental Protection Agency

Response to Comment Number 3-1

The San Francisco Bay RWQCB will likely permit the discharge of recycled water separately from the discharge of diluted bittern. Currently the San Francisco Bay RWQCB is contemplating an NPDES permit for recycled water and Waste Discharge Requirements (WDRs) for the diluted bittern. The sentence on the bottom of page 4-5 was amended to read:

It is anticipated that the San Francisco Bay RWQCB would ~~not~~ impose WDRs on the discharge of bittern and an NPDES point-source discharge permit on the discharge of recycled water ~~proposed project because~~ although the project is considered a long-term beneficial water reclamation and wetland restoration project.

3.3 State Agencies

Comment Letter 4

CALFED
BAY-DELTA
PROGRAM

650 Capitol Mall, 5th Floor
Sacramento, California 95814

(916) 445-5511
FAX (916) 445-7297
http://calwater.ca.gov

June 19, 2003

Ms. Amy Hutzel
State Coastal Conservancy
1330 Broadway, 11th Floor
Oakland CA 94612

Dear Amy:

Thank you for sharing the Napa River Salt Marsh Restoration Project's draft feasibility report with us. The project is an important element in the restoration of the Bay-Delta ecosystem. We support the project's restoration of tidal marshes and adjoining sloughs, for which the Resources Agency is providing $4.5 million of California Bay-Delta Authority implementation funds. We are pleased that the California Department of Fish and Game and the US Army Corps of Engineers, both of whom are signatories to the CALFED record of decision, are continuing to pursue full restoration of the site with the Conservancy's help. 4-1

Our detailed comments on the feasibility report are attached. We look forward to working with the Conservancy, Corps of Engineers, and California Department of Fish and Game as you implement this important project.

Sincerely,

Dan Ray
Staff Environmental Scientist
Ecosystem Restoration Program

enclosure

RECEIVED
JUN 23 2003
COASTAL CONSERVANCY
OAKLAND, CALIF.

CALFED Agencies

California
The Resources Agency
- Department of Water Resources
- Department of Fish and Game
- The Reclamation Board
- Delta Protection Commission
- Department of Conservation
- San Francisco Bay Conservation and Development Commission

California Environmental Protection Agency
- State Water Resources Control Board

Department of Health Services
Department of Food and Agriculture

Federal
Department of the Interior
- Bureau of Reclamation
- Fish and Wildlife Service
- Geological Survey
- Bureau of Land Management

Environmental Protection Agency
Army Corps of Engineers
Department of Agriculture
- Natural Resources Conservation Service
- Forest Service

Department of Commerce
- National Marine Fisheries Service

Western Area Power Administration

California Bay-Delta Authority comments
Napa River Salt Marsh Restoration Project draft feasibility report

We recommend that the report's Section 4.3 (Planning Considerations) acknowledge the project's contribution to achieving the ecosystem restoration targets of the California Bay Delta Program multi-species conservation strategy (MSCS). For our Napa River, Sonoma Creek, and Petaluma River ecological management units, these targets include restoring 10 miles of slough in the short term and 20 miles in the long term for fish and wildlife habitat. Restoring 1,000 to 2,000 acres of tidal marsh and 400 nearby acres of deeper open-water areas are also among the MSCS's Napa River ecosystem targets that the project will help achieve. These restored habitats can aid many species that Bay-Delta Program agencies have pledged to help recover: delta smelt, Chinook salmon, Sacramento splittail, San Pablo song sparrows, Point Reyes and soft bird's beak, salt marsh harvest mice, clapper and black rails, and salt marsh yellowthroats. These contributions to implementation of the Bay-Delta Program's Ecosystem Restoration Program should also be reported in section 6.4 (Significance of Project Benefits). 4-2

The value of the project's restored tidal marsh and mudflat habitats' for several of these species could be more fully acknowledged in the report. The description of mudflats on page 66, for example, should add estuarine fish species to its list of animals that forage there, and Table 5.2 should list Chinook and steelhead as species that use mudflats. 4-3

We share concerns that the USFWS acknowledged in its draft Fish and Wildlife Coordination Act report about the application of HEP analysis to evaluate the project's ecosystem benefits. In addition to the caveats of the service's report, we also believe the HEP analysis understates the value of tidal marsh and mudflat for estuarine fish, in part because the analysis' estuarine fish suitability indices use American shad, an introduced species whose habitats differ in important ways from splittail, salmon, steelhead, and other important native fish. Acknowledgement of estuarine fish' use of mudflats would also enhance the valuation of tidal habitats. As reported on p. ii, these tidal habitats will be naturally sustainable, a principle of the ecosystem restoration program's strategic plan, in contrast to managed ponds. A greater emphasis on tidal habitats could ultimately reduce maintenance costs, too, as acknowledged on p. 81. 4-4

For these reasons, it seems inappropriate to conclude that alternatives that maximize tidal habitats are less cost effective than those that emphasize managed ponds. Rather, the report should acknowledge the benefits of the various alternatives, the uncertainties associated with the HEP, and the sound reasons supporting the preferred alternative: project phasing, adaptive management, and coordination with adjacent restoration. 4-5

Opportunities to more fully restore tidal influence to other ponds in the future, should the actions now proposed prove especially beneficial to priority species, should not be undermined by labeling them as "not cost effective". Instead, we recommend that opportunities to more fully restore tidal habitats at the site be protected by including ponds 1, 1A, and 2 in the analysis proposed in Section 6.3.3.5 4-6

A robust adaptive management program is important. It can evaluate the project's progress, allow adaptations if outcomes don't meet expectations, and provide the information needed to determine the long term management of Ponds 1, 1A, 2, 6, and 6A. The project's adaptive management program would be strengthened by fuller application of the process described in the Ecosystem Restoration Program's (ERP) strategic plan, including the use of conceptual models and the testing of hypotheses about how the restoration will proceed. The Conservancy's ERP proposal for the project provides an important starting place for these elements of a successful adaptive management process. 4-7

Monitoring for delta smelt, Sacramento splittail, Chinook salmon, and steelhead trout will be necessary to evaluate whether the project achieves the outcomes sought in the project's ERP proposal. These species should be added to the fish monitoring plan described in the draft EIS. Monitoring should be coordinated with the Bay Delta Authority's science program and, in the case of contaminant monitoring, with researchers studying methyl mercury processes in Bay area wetlands. 4-8

* * *

Letter #4. CALFED Bay-Delta Program

Response to Comment Number 4-1

Comment noted. Though the comments specifically address the Feasibility Report, relevant sections of the Draft EIR/EIS may also be changed as described below.

Response to Comment Number 4-2

Additional text was added to the Final EIS in Section 2.3.1.1:

> The project will also help achieve the California Bay-Delta Program multi-species conservation strategy targets by restoring slough, marsh, and deeper open-water areas. These restored habitats can aid many species that the Bay-Delta Program agencies have pledged to help recover.

Changes were not made to Chapter 6 as beneficial impacts were already identified.

Response to Comment Number 4-3

Comment noted. The commentor is correct in identifying that these expanded areas of habitat could be valuable to listed species. No additional changes were made to Chapter 7 because the beneficial impacts of additional habitat were already identified.

Response to Comment Number 4-4

Comment noted. The commentor is likely correct that the aquatic benefits of the project may be underestimated. However, because of the complexity and uncertainty associated with the restoration effort, these benefits do not need to be described in more detail than is currently present in the Final EIS.

Response to Comment Number 4-5

Comment noted. Cost effectiveness is addressed in the Feasibility Report as indicated. Both the Draft EIR/EIS and Final EIS emphasize project phasing, adaptive management, and coordination with adjacent restoration; therefore, no additional changes to the Final EIS are proposed.

Response to Comment Number 4-6

Comment noted. The comment is directed toward the Feasibility Report. However, DFG, the property owner and manager, does not intend to change the management of Ponds 1, 1A, or 2 because of the habitat values currently provided in these ponds. No changes to the Final EIS are necessary.

Response to Comment Number 4-7

The adaptive management plan has been expanded to include hypotheses about how the restoration will proceed. Information has been added to the Final EIS as described in Master Response 3. Adaptive Management.

Response to Comment Number 4-8

Fish monitoring is proposed as part of the monitoring program. While these species may be found in the sampling effort, the project does not have species-specific outcomes because these may be unattainable for ecological reasons beyond the project. The RWQCB will likely include monitoring for methylmercury, and this effort will be coordinated with the Bay Delta Authority's science program. No changes to the Final EIS are proposed.

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460

Gray Davis
Governor

Comment Letter 5

Date: JUN 17 2003
File No. 2138.05 (TT)

Amy Hutzel
California State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612

Shirin Tolle
U.S. Army Corps of Engineers, San Francisco District
333 Market St, 7th Floor
San Francisco, CA 94105

RE: NAPA RIVER SALT MARSH RESTORATION PROJECT, Draft EIR/EIS, April 2003, Project Sponsors are California Coastal Conservancy, U.S. Army Corps of Engineers, California Department of Fish & Game, SCH# 1998072074

Dear Ms. Hutzel and Ms. Tolle:

Thank you for the opportunity to comment on the Draft EIR/EIS for the Napa River Salt Marsh Restoration Project sponsored by the U.S. Army Corps of Engineers (Corps), California Coastal Conservancy (Conservancy) and the California Department of Fish and Game (DFG).

The proposed restoration site has 7,190 acres of salt ponds and levees (68% of total project area) and 2,266 acres of fringing marsh and sloughs (32%) and is to be partially restored to a tidal marsh system. This is an excellent project that will attempt to decrease salinities in the existing salt ponds with river and recycled water and to restore some of these salt ponds to their previous condition of tidal marsh.

The Draft EIR/EIS contends with a complicated series of issues that it summarizes in a clear set of alternatives for salinity reduction, habitat restoration, and water delivery. There are eight final alternatives including the No Project Alternative. The selected alternative is Number 6 which provides for Napa River and Napa Slough Discharge with Breaches of Ponds 3 and 4/5 (Salinity Reduction Option 1C), Recycled Water Delivery, and Mixture of Ponds and Tidal Marsh (Habitat Restoration Option 1). This alternative is selected as the preferred alternative because it provides relatively fast habitat restoration and salinity reduction in the lower ponds using a careful, phased approach in balancing the goal of restoring new tidal marsh habitat while preserving some salt ponds for avian species. This habitat option leaves Ponds 1, 1A, 2 and 2A as ponds or marshes, restores Ponds 3 and 4/5 to tidal marsh, maintains Pond 6/6A as a pond initially with the option of restoring it to tidal marsh in the future, and continues to manage Ponds 7, 7A, and 8 as ponds.

Habitat Issues

The following comments concentrate mainly on the habitat issues:

1. Alternative 6 appears to be a reasonable choice. However, Alternatives 5 and 7 which use the accelerated restoration option (Option 4) might also be reasonable if the available sediment for natural accretion is insufficient or if insufficient high marsh, transitional habitat or upland buffers exist to protect a balance of species in the restored tidal marsh ecosystem. The accelerated restoration option should be one that can be revisited as part of an adaptive management strategy once the project has started and monitoring reveals what species are or are not using it. 5-1

2. There seems to be some discrepancy in the treatment of high marsh in this tidal marsh restoration study. Obviously high marsh as well as transitional habitats and upland buffers are all important components of tidal marsh systems and it would be a mistake to restore tidal marshes with just low and middle marshes. This is acknowledged in some sections of the draft report, but not in others.

   Sections leaving out high marsh

   a) Pages S-10 and 2-47-48 5-2
   The draft EIR/S states that "The goal of the project is to provide a mosaic of wetland habitats....Goals for tidal habitat restoration, which would include middle marsh, lower marsh, intertidal mudflat, and subtidal areas, are as follows":

   - Restore large patches of tidal marsh....
   - Create connections to enable movement....
   - Restore tidal marsh in a band along the Napa River to maximize benefits for fish and other aquatic animals. [ADD Terrestrial Animals on page 2-48 as well as in the Summary section on page S-10.]

   Why not include high marsh as a goal? It is part of a tidal marsh and important for marsh birds such as rails, in addition to mammals, amphibians, and reptiles. The Mammals, Amphibians, Reptiles, and Invertebrates (MARI) Team wrote in the *Baylands Ecosystem Habitat Goals Report* (1999; page A-35) that:

   > "The Napa marshes include the existing tidal marshes south of Highway 37 between Sonoma Creek and the Napa River. Portions of these marshes around Mare Island support some of the highest densities of salt marsh harvest mice in the entire North Bay.... The restoration of the parcels along the western side of the Napa River will provide a solid tidal salt marsh block on the northeastern side of North Bay and up the lower Napa River that should support healthy populations of salt marsh harvest mouse independent of other populations..."

While salt marsh harvest mice are emphasized in this excerpt from the MARI team, the team's general tenets were developed to provide general protection mainly for mammals, amphibians, and reptiles that use tidal marsh systems. One of the basic tenets used by the team was that tidal marsh projects should **"Include buffers wherever possible as refugia from flooding, as transitional areas or ecotones between wetlands and uplands, and as safe havens from humans and non-native or feral animals."** In short, wetland restoration projects of any sort should strive to include and maintain complete ecosystems with representative species from all major species groups including plants, birds, fish, mammals, amphibians, reptiles, and invertebrates. 5-2 cont'd

There appears to be a region-wide template used in the design and monitoring of wetland projects in the San Francisco Bay region which emphasizes plants and sometimes includes birds and fish but frequently leaves out some of the major species groups. The expense of surveys is likely the cause for the lop-sided monitoring programs, but we should at least be rotating monitoring of species groups in both large and small projects if we cannot afford to monitor all groups in every project. Key groups should not be consistently left out of monitoring programs based on the assumption that they will show up at restored marshes and do not, therefore, need to be surveyed.

b) Page 2-50 5-3
Why wasn't any upper marsh included in the modeling calculations?

Sections including high marsh:

a) Page 2-51-52. Tables 2-3 and 2-4 include additional levee lowering for high marsh restoration 5-4

b) Page 6-41. It is noted that lowering levees will result in middle and upper marsh habitats of higher quality which serve as upper marsh refugia. Note that the statement that lowering levees will inhibit access and reduce habitat for predators is a hypothesis that should be tested (possibly as part of an adaptive management program) and should be further elaborated upon in terms of which predators you are talking about (page 6-41). 5-5

c) Page 2-45. Design features to speed marsh evolution include blocking borrow ditches, regarding levees to MHHW by sloping them into ponds; excavating starter channels; placing limited amounts of fill. All of these seem like reasonable activities, especially regarding levees into the ponds. 5-6

3. Page 2-63 states that the project sponsors will conduct pre-construction surveys for federally listed and state-listed plants and animals. These should note all species captured or observed even if those are not listed species. This data can be used as part of the baseline to compare before to after project conditions. Page 2-65 notes the avian, fish, and macroinvertebrate surveys conducted in Ponds 1, 2, 2A, 3, 4, and 7 since 1999 along with other abiotic data 5-7

reported in Takekawa et al. 2001 (see EIR for citation). Any additional biological data on other species groups should be included, if possible. Even if additional data is not collected before the project, the list of biological species should be expanded after the project. The 2002 monitoring report for Tolay Creek provides a good model since it includes small mammal surveys designed to discover salt marsh harvest mice as well as shrews and voles in addition to data about birds, fish, invertebrates, water quality, hydrology, geomorphology, sedimentation, and vegetation (Takekawa et al. 2002). It is important to know what biological groups will be using the restored tidal marshes and the adjacent, connected habitats and what processes are occurring in the development of those marshes. 5-7 cont'd

Page 2-67 to 2-68. Related to the above discussion, this section discusses the proposed monitoring program and suggests that primary productivity (mostly clorophyll-*a* and nutrients), invertebrates, birds, fish, contaminants, and introduced predators be monitored. Again, this list should include mammals, amphibians, and reptiles at least at 5-year intervals.

4. Page 2-69. The Adaptive Management section is not yet well-developed and simply states that flexibility should be incorporated into the project while setting quantitative standards as performance criteria. We look forward to working with the Napa Salt Pond project team on these standards as the 401 certification and/or Waste Discharge Requirements are developed for the San Francisco Bay Regional Water Quality Control Board. At that time we will try to work out a reasonable plan for phasing, performance criteria, design modifications, funding assurances, and contingency plans. By that time some of the additional baseline data should be collected and analyzed and can, therefore, be used as a basis for setting restoration targets. 5-8

5. Page 2-64. pH and dissolved oxygen should be added to the list of key continuous monitoring variables that will be measured (along with flow, water level stage, salinity, temperature, TSS/ turbidity). 5-9

6. Page 2-66. Consider installing some Sediment Erosion Tables instead of relying solely on marker horizons, sedimentation plates and pins, and topographic resurveys. Several restoration projects have found those techniques to be ineffective. For information on sediment erosion tables look on SFEI's web page under Wetland Regional Monitoring Program Protocols (author = J. Callaway). 5-10

7. Page 5-19. Table 5-2 states that the native cordgrass (*Spartina foliosa*) has been extirpated from the San Francisco Bay Region. Is this a mistake since, as the EIR/S itself states, there is a nearby population on Coon's Island? 5-11

8. Page 6-13. The section on Amphibians and Reptiles states that "Little is known about the amphibians and reptiles that occur, or could occur, in the Napa River Unit. The brackish and saline waters on site are generally unsuitable for the red-legged frog (*Rana aurora draytoni*). The western pond turtle (*Clemmys marmorata*) is not likely to occur in the project area for the same reason." While the actual brackish and salt *water* is unlikely habitat (especially for 5-12

breeding) the vegetated tidal medium and high marsh habitats (and even lagoons) are listed as suitable for the red-legged frog and the western pond turtle in the *Baylands Ecosystem Habitat Goals Report* (1999; page 63). Moreover the western pond turtle is listed as using low marsh for resting and foraging. A recent report sponsored by the Nature Conservancy concluded that California has the highest percentage of rare and at risk amphibians compared to other states and, while California ranks highest of the fifty states for biological diversity, almost 30% of its species are at risk of extinction (Stein 2002). Given the high losses of amphibians in California, it would be good to err on the safe side for both amphibians and reptiles and assume that they may be in existing tidal marshes, especially the upper marsh, until this hypothesis is proven incorrect. 5-12 cont'd

9. Page 6-15. Add marshes for red-legged frogs based on Goals Report (1999) page 63. 5-13

10. Page 6-25. What is the criteria for selecting the species that have descriptions? There is no title for that section explaining why some species are discussed and others are not (some are special status but some are not).[1] 5-14

Salinity Reduction

General Comments

Regional Board staff find that the DEIR/S does an excellent job of presenting the water quality impacts from the various salinity reduction options and the mitigation measures that would minimize these impacts. Regional Board staff will need to fully review the discharge permit application, which we received on June 6, 2003, as well as other future modeling efforts before fully endorsing breaches over discharge control structures. However, given the salinity increases estimated from the modeling efforts performed to date, it appears that the benefits of breaching Ponds 3 and 4 (accelerated restoration) could outweigh the impacts from the shorter term but higher magnitude salinity increases to the Napa River. These impacts could be mitigated by timing the breaches to coincide with high flow events and managing the pond water to reduce salinities in Ponds 3 and 4 prior to breaching. 5-15

As the DEIR/S correctly states, the Basin Plan's salinity criteria is narrative and based on the discharges not adversely affecting beneficial uses, particularly fish migration and estuarine 5-16

[1] References used:

Stein, B. 2002. States of the Union: Ranking America's Biodiversity. Arlington, VA: NatureServe.

Takekawa, J., M. Bias, I. Woo, G. Downard. 2002. Restoration Research and Monitoring in Bayland Wetlands of the San Francisco Estuary: the Tolay Creek Project. U.S.G.S. WERC. SFBE Field Station, California.

U.S. EPA & SF Bay Regional Water Quality Control Board. 1999. *Baylands Ecosystem Habitat Goals Report.* Oakland, CA.

U.S. EPA & SF Bay Regional Water Quality Control Board. 2000. *Baylands Ecosystem Species and Community Profiles.* Oakland, CA.

habitat. The salinity effluent limitations in the project's future discharge permit from the Regional Board will be partly predicated on this narrative criteria and will consider the timing of the discharge from the standpoint of the fish species present in the system and from the standpoint of optimizing dilution capacity. It will likely also be based on the level of salinity of the ponds prior to discharge. The DEIR/S states that the mouth of the Napa River's seasonal salinity variability is about 20 parts per thousand (ppt). This is greater than the greatest first day increase (18 ppt) projected by the model using simultaneous breaches at Ponds 3 and 4. Although this is higher than the daily fluctuations in the Napa River within a season (5 ppt), this short term pulse of salinity (18 ppt first day, 12 ppt second day, 5 ppt within two weeks) is likely to be tolerable given the adaptability and mobility of the estuarine species present in the system. In addition, if the breaches were phased, the projected salinity spike in the river would be reduced. 5-16 cont'd

In addition to potential impacts from shorter term but greater magnitude salinity increases to the Napa River, there would be construction-related impacts with both breaches (use of explosives and construction equipment) and discharge control structures (construction equipment) due to increased turbidity and sediment releases. Considering that breaches are an inevitable component of the project at some point in time after the discharge control structures are removed, the discharge control structures are an added construction-related impact during the life of the project; i.e., the installation and removal of the discharge control structures add construction-related impacts that would not be part of the lower ponds if breaches were the method of discharge. The impacts from increased turbidity and sediment from breaches is projected to be minor in comparison with the sediment flushes in the river that occur during a large storm event. Perhaps some additional investigation into estimating the increases in turbidity that breaches would have in the river would be appropriate. 5-17

Specific Comments

1) Considering the potential for anoxic areas in the ponds to form, the permit from the Regional Board will most likely include some requirement for methyl-mercury monitoring in the ponds. (Pages 4-34 and 35) 5-18
2) Additional targeted constituent sampling may be necessary for some of the ponds in order to better determine whether discharges would have the potential to cause exceedances of water quality objectives. Any additional sampling performed should be done with lower detection limits and with techniques that minimize matrix interferences. The sampling that was performed in the Fall of 2001 was to investigate conditions under a potential worst-case discharge scenario; i.e., if a breach occurred, what water quality impacts would be foreseen. Timing of future sampling should coincide closer with actual discharge scenarios, i.e., when breaches would occur or when discharge from water control structures would occur. More specific sampling recommendations may be forthcoming once staff has fully reviewed the discharge permit application. 5-19

3) Staff agree with the conclusion stated on page 4-23 that additional toxicity data should be obtained prior to considering an increase in the dilution ratio for discharge of bittern from 1% to 5%. 5-20

4) It should be mentioned, particularly on page 4-34 under Mitigation Measure WQ-3, that the water recycling discharges to the mixing chambers will be covered under a NPDES permit from the Regional Board. 5-21

5) We applaud the wastewater treatment plant's efforts to a) use recycled tertiary treated wastewater to accelerate the restoration of the northern ponds and b) look for potential long-term recycled water users. We encourage continuation of these efforts. Construction of the 3 pipelines from Sonoma, Napa, and American Canyon wastewater treatment plants (WWTPs), however, will require separate permit applications for coverage under the State Water Resources Control Board's NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (see attachment). Each pipeline will also require Clean Water Act Section 401 certifications from the Regional Board as each pipeline will have specific issues that need to be addressed; e.g., directional drilling under the Napa River poses a special set of problems specific to that pipeline. 5-22

6) Option 2 is not desirable from the standpoint of introducing recycled water into the ponds. 5-23

Summary

The draft EIR/EIS covers an excellent wetland restoration project in the San Francisco Bay region and we look forward to working on it with the Coastal Conservancy, the Corps of Engineers, and the Department of Fish and Game as it develops over the next months, years, and decades. If you have any questions please contact Tobi Tyler at 510-622-2431 or tt@rb2.swrcb.ca.gov or Andree Breaux at 510-622-2324 or ab@rb2.swrcb.ca.gov. Thank you for consideration of these comments.

Sincerely,

Ron Gervason

Ron Gervason

Attachment: General Comments

General Comments

The San Francisco Regional Water Quality Control Board (Regional Board or RWQCB) is charged with the protection of the Waters of the State of California in the San Francisco Bay Region, including wetlands and stormwater quality. The Regional Board is responsible for administering the regulations established by the Federal Clean Water Act. Additionally, the California Water Code establishes broad state authority for regulation of water quality. The San Francisco Bay Basin Water Quality Control Plan (Basin Plan) explains the Regional Board's strategy for regulating water quality. The Basin Plan also describes the range of responses available to the Regional Board with regard to actions and proposed actions that degrade or potentially degrade the beneficial uses of the Waters of the State of California. 5-24

NPDES

Water quality degradation is regulated by the Federal National Pollutant Discharge Elimination System (NPDES) Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and nonpoint discharges. In California, the program is administered by the California Regional Water Quality Control Boards. The Regional Board issues NPDES permits for discharges to water bodies in the San Francisco Bay Area, including Municipal (area- or county-wide) Stormwater Discharge Permits.

Projects disturbing more than one acre of land during construction must be covered under the State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). This can be accomplished by filing a Notice of Intent with the State Water Resources Control Board. An NOI and the General Permit can be obtained from the Board at (510) 622-2300. The project sponsor must propose and implement control measures that are consistent with the General Permit and with the recommendations and policies of the local agency and the RWQCB.

Projects that include facilities with discharges of Storm Water Associated with Industrial Activity must be covered under the State NPDES General Permit for Discharges of Storm Water Associated with Industrial Activity. This may be accomplished by filing a Notice of Intent. The project sponsor must propose control measures that are consistent with this, and with recommendations and policies of the local agency and the RWQCB. In a few cases, the project sponsor may apply for (or the RWQCB may require) issuance of an individual (industry- or facility-specific) permit.

The RWQCB's Urban Runoff Management Program requires Bay Area municipalities to develop and implement storm water management plans (SWMPs). The SWMPs must include a program for implementing new development and construction site storm water quality controls. The objective of this component is to ensure that appropriate measures to control pollutants from new development are: considered during the planning phase, before construction begins; implemented during the construction phase; and maintained after construction, throughout the life of the project.

Impacts and Mitigation Measures

Wetlands

Wetlands enhance water quality through such natural functions as flood and erosion control, stream bank stabilization, and filtration and purification of contaminants. Wetlands also provide critical habitats for hundreds of species of fish, birds, and other wildlife, offer open space, and provide many recreational opportunities. Water quality impacts occur in wetlands from construction of structures in waterways, dredging, filling, and altering drainage to wetlands.

The Regional Board must certify that any permit issued by the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act (covering, dredging, or filling of Waters of the United States, including wetlands) complies with state water quality standards, or waive such certification. Section 401 Water Quality Certification is necessary for all 404 Nationwide permits, reporting and non-reporting, as well as individual permits.

All projects must be evaluated for the presence of jurisdictional wetlands and other Waters of the State. Destruction of or impact to these waters should be avoided. If the proposed project impacts wetlands or other Waters of the State and the project applicant is unable to demonstrate that the project was unable to avoid those adverse impacts, water quality certification will most likely be denied. 401 Certification may also be denied based on significant adverse impacts to wetlands or other Waters of the State. In considering proposals to fill wetlands, the Regional Board has adopted the California Wetlands Conservation Policy (Executive Order W-59-93, signed August 23, 1993). The goals of the Policy include ensuring "no overall net loss and achieving a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values." Under this Policy, the Regional Board also considers the potential post-construction impacts to wetlands and Waters of the State and evaluates the measures proposed to mitigate those impacts (see Storm Water Quality Control, below).

The Regional Board has adopted U.S. EPA's Clean Water Act Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in the Board's Basin Plan for determining the circumstances under which fill may be permitted.

Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States, unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative that will achieve the basic project purpose. For non-water dependent projects, the guidelines assume that there are less damaging alternatives, and the applicant must rebut that assumption.

The Section 404(b)(1) Guidelines sequence the order in which proposals should be approached. First, impacts to wetlands or Waters of the State must be avoided to the maximum extent practicable. Second, the remaining impacts must be minimized. Finally, the remaining unavoidable adverse impacts to wetlands or Waters of the State must be mitigated. Mitigation will be preferably in-kind and on-site, with no net destruction of habitat value. A proportionately greater amount of mitigation is required for projects that are out-of-kind and/or off-site. Mitigation will preferably be completed prior to, or at least simultaneous to, the filling or other loss of existing wetlands.

Successful mitigation projects are complex tasks and difficult to achieve. This issue will be strongly considered during agency review of any proposed wetland fill. Wetland features or ponds created as mitigation for the loss of existing jurisdictional wetlands or Waters of the United States cannot be used as storm water treatment controls.

In general, if a proposed project impacts wetlands or Waters of the State and the project applicant is unable to demonstrate that the project was unable to avoid adverse impacts to wetlands or Waters of the State, water quality certification will be denied. 401 Certification may also be denied based on significant adverse impacts to wetlands or other Waters of the State.

Storm Water Quality Control

Storm water is the major source of fresh water to creeks and waterways. Storm water quality is affected by a variety of land uses and the pollutants generated by these activities. Development and construction activities cause both site-specific and cumulative water quality impacts. Water quality degradation may occur during construction due to discharges of sediment, chemicals, and wastes to nearby storm drains or creeks. Water quality degradation may occur after construction is complete, due to discharges of petroleum hydrocarbons, oil, grease, and metals from vehicles, pesticides and fertilizers from landscaping, and bacteria from pets and people. Runoff may be concentrated and storm water flow increased by newly developed impervious surfaces, which will mobilize and transport pollutants deposited on these surfaces to storm drains and creeks. Changes in runoff quantity or velocity may cause erosion or siltation in streams. Cumulatively, these discharges will increase pollutant loads in creeks and wetlands within the local watershed, and ultimately in San Francisco Bay.

To assist municipalities in the Bay Area with complying with an area-wide NPDES Municipal Storm Water Permit or to develop a Baseline Urban Runoff Program (if they are not yet a co-permittee with a Municipal Storm Water Permit), the Regional Board distributed the *Staff Recommendations for New and Redevelopment Control for Storm Water Programs* (Recommendations) in April 1994. The Recommendations describe the Regional Board's expectations of municipalities in protecting storm water quality from impacts due to new and redevelopment projects, including establishing policies and requirements to apply to development areas and projects; initiating appropriate planning, review, approval, and inspection procedures; and using best management practices (BMPs) during construction and post-construction.

Project impacts should be minimized by developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). A SWPPP is required by the State Construction Storm Water General Permit (General Permit). The SWPPP should be consistent with the terms of the General Permit, the Manual of Standards for Erosion & Sedimentation Control Measures by the Association of Bay Area Governments (ABAG), policies and recommendations of the local urban runoff program (city and/or county), and the Recommendations of the RWQCB. SWPPPs should also be required for projects that may have impacts, but which are not required to obtain an NPDES permit. Preparation of a SWPPP should be a condition of development. Implementation of the SWPPP should be enforced during the construction period via appropriate options such as citations, stop work orders, or withholding occupancy permits.

Impacts identified should be avoided and minimized by developing and implementing the types of controls listed below. Explanations of the controls are available in the Regional Board's construction *Field Manual*, available from Friends of the San Francisco Estuary at (510) 286-0924, in BASMAA's *Start at the Source*, and in the *California Storm Water Best Management Practice Handbooks*.

Site Planning

The project should minimize impacts from project development by incorporating appropriate site planning concepts. This should be accomplished by designing and proposing site planning options as early in the project planning phases as possible. Appropriate site planning concepts to include, but are not limited to the following:

- Phase construction to limit areas and periods of impact.
- Minimize directly connected impervious areas.
- Preserve natural topography, existing drainage courses and existing vegetation.
- Locate construction and structures as far as possible from streams, wetlands, drainage areas, etc.
- Provide undeveloped, vegetated buffer zones between development and streams, wetlands, drainage areas, etc.
- Reduce paved area through cluster development, narrower streets, use of porous pavement and/or retaining natural surfaces.
- Minimize the use of gutters and curbs which concentrate and direct runoff to impermeable surfaces.
- Use existing vegetation and create new vegetated areas to promote infiltration.
- Design and lay out communities to reduce reliance on cars.
- Include green areas for people to walk their pets, thereby reducing build-up of bacteria, worms, viruses, nutrients, etc. in impermeable areas, or institute ordinances requiring owners to collect pets' excrement.
- Incorporate low-maintenance landscaping.
- Design and lay out streets and storm drain systems to facilitate easy maintenance and cleaning.
- Consider the need for runoff collection and treatment systems.
- Label storm drains to discourage dumping of pollutants into them

Erosion

The project should minimize erosion and control sediment during and after construction. This should be done by developing and implementing an erosion control plan, or equivalent plan. This plan should be included in the SWPPP. The plan should specify all control measures that will be used or which are anticipated to be used, including, but not limited to, the following:

- Limit access routes and stabilize access points.
- Stabilize denuded areas as soon as possible with seeding, mulching, or other effective methods.
- Protect adjacent properties with vegetative buffer strips, sediment barriers, or other effective methods.
- Delineate clearing limits, easements, setbacks, sensitive areas, vegetation and drainage courses by marking them in the field.
- Stabilize and prevent erosion from temporary conveyance channels and outlets.
- Use sediment controls and filtration to remove sediment from water generated by dewatering or collected on-site during construction. For large sites, stormwater settling basins will often be necessary.

Chemical and Waste Management

The project should minimize impacts from chemicals and wastes used or generated during construction. This should be done by developing and implementing a plan or set of control measures. The plan or control measures should be included in the SWPPP. The plan should specify all control measures that will be used or which are anticipated to be used, including, but not limited to, the following:

- Designate specific areas of the site, away from streams or storm drain inlets, for storage, preparation, and disposal of building materials, chemical products, and wastes.

- Store stockpiled materials and wastes under a roof or plastic sheeting.
- Store containers of paint, chemicals, solvents, and other hazardous materials stored in containers under cover during rainy periods.
- Berm around storage areas to prevent contact with runoff.
- Cover open Dumpsters securely with plastic sheeting, a tarp, or other cover during rainy periods.
- Designate specific areas of the site, away from streams or storm drain inlets, for auto and equipment parking and for routine vehicle and equipment maintenance.
- Routinely maintain all vehicles and heavy equipment to avoid leaks.
- Perform major maintenance, repair, and vehicle and equipment washing off-site, or in designated and controlled areas on-site.
- Collect used motor oil, radiator coolant or other fluids with drip pans or drop cloths.
- Store and label spent fluids carefully prior to recycling or proper disposal.
- Sweep up spilled dry materials (cement, mortar, fertilizers, etc.) immediately--do not use water to wash them away.
- Clean up liquid spills on paved or impermeable surfaces using "dry" cleanup methods (e.g., absorbent materials, cat litter, rags) and dispose of cleanup materials properly.
- Clean up spills on dirt areas by digging up and properly disposing of the soil.
- Keep paint removal wastes, fresh concrete, cement mortars, cleared vegetation, and demolition wastes out of gutters, streams, and storm drains by using proper containment and disposal.

Post-Construction

The project should minimize impacts from pollutants that may be generated by the project following construction, when the project is complete and occupied or in operation. These pollutants may include: sediment, bacteria, metals, solvents, oil, grease, and pesticides, all of which are typically generated during the life of a residential, commercial, or industrial project after construction has ceased. This should be done by developing and implementing a plan and set of control measures. The plan or control measures should be included in the SWPPP.

The plan should specify all control measures that will be used or which are anticipated to be used, including, but not limited to, the source controls and treatment controls listed in the Recommendations. Appropriate control measures are discussed in the Recommendations, in:

- Table 2: Summary of residential post-construction BMP selection
- Table 3: Summary of industrial post-construction BMP selection
- Table 4: Summary of commercial post-construction BMP selection

Additional sources of information that should be consulted for BMP selection include the *California Storm Water Best Management Practice Handbooks;* the Bay Area Preamble to the *California Storm Water Best Management Practice Handbooks and New Development Recommendations*; the BASMAA New Development Subcommittee meetings, minutes, and distributed information; and Regional Board staff. Regional Board staff also have fact sheets and other information available for a variety of structural stormwater treatment controls, such as grassy swales, porous pavement and extended detention ponds.

Letter #5. California Regional Water Quality Control Board, San Francisco Bay Region

Response to Comment Number 5-1

The project sponsors agree with this observation and will reserve a variety of adaptive management strategies to accomplish the project objectives. No changes are proposed for the Final EIS.

Response to Comment Number 5-2

The project sponsors acknowledge that upper marsh and transitional habitats are an important part of tidal marsh systems. The project focuses primarily on subtidal, intertidal mudflat, lower marsh, and middle marsh because these are the majority of existing and future habitats in the project area and because site elevations are most conducive to restoring these habitats. Upland/transition areas, in addition to the middle marsh, serve as key habitats for many terrestrial and bird species and remain largely constant over the project period. The project is designed to recreate a more natural ecosystem with representative species from all major species groups. The adaptive management and monitoring plan will help ensure this. The project sponsors added a mammal-monitoring element to the monitoring program to ensure these species' habitats were evaluated over time. No additional changes to the Final EIS are proposed.

Response to Comment Number 5-3

Upper marsh was included in the modeling calculations and is indicated on Table 2-2 as *upland/transition*. This habitat effectively remains the same under the various alternatives throughout the next 50 years.

Response to Comment Number 5-4

Comment noted. No changes to the Final EIS are proposed.

Response to Comment Number 5-5

Levee lowering, in conjunction with breaches, serves several functions, including creating a more natural system with islands and more natural elevation transitions. These changes are expected to make the project area less suitable for introduced predators, including feral cats and red foxes. It is DFG's professional opinion that levee lowering and breaches will help reduce predation. Minor new

information was added to page 6-41, but the project sponsors are not proposing to test a predation hypothesis.

Response to Comment Number 5-6

Comment noted. No changes to the Final EIS are proposed.

Response to Comment Number 5-7

The project sponsors met with an Adaptive Management Plan Technical Advisory Group to refine the plan (see also Master Response 3. Adaptive Management Plan). Additional monitoring will be conducted for mammals, but not amphibians or reptiles, based on DFG's experience and because of the limited habitat availability for these species in the project area.

Response to Comment Number 5-8

Comment noted. The project sponsors are working with the RWQCB on the water quality certification under Section 401 of the Clean Water Act and will work with the RWQCB to determine an appropriate monitoring plan.

Response to Comment Number 5-9

The project sponsors have met several times with the RWQCB. At these meetings the RWQCB indicated that grab samples at breaches (i.e., discharge points) were appropriate. The project sponsors are not proposing continuous monitoring but will continue to work with the RWQCB to determine appropriate sampling methodologies.

Response to Comment Number 5-10

Comment noted. The project sponsors will consider using sediment erosion tables.

Response to Comment Number 5-11

The table has been corrected to indicate that this species has been extirpated from South San Francisco Bay, not the North Bay (including Coon's Island).

Response to Comment Number 5-12

DFG has never documented either of these species in the project area. Because of the brackish nature of the site, presence of these species is highly unlikely. The USFWS also did not indicate concern about these species when issuing the Biological Opinion for the project. No changes to the Final EIS are proposed.

Response to Comment Number 5-13

While the Goals Report does indicate that the project area may be suitable for red-legged frogs, the footnote in the table indicates that it is not to be used to determine site-specific habitat. DFG biologists indicate that this species' presence is highly unlikely. Therefore, no changes to the Final EIS are proposed.

Response to Comment Number 5-14

The table was intended to focus on special-status species only. Table 6-2 has been modified in the Final EIS.

Response to Comment Number 5-15

Comment noted. No additional changes are proposed.

Response to Comment Number 5-16

Comment noted. No additional changes are proposed.

Response to Comment Number 5-17

As the comment indicates, the potential for increased sediment and turbidity is projected to be minor in comparison with sediment flushes in the river during a large storm event. This issue has also been discussed in several meetings between the project sponsors and the RWQCB. During these meetings the project sponsors indicated and the RWQCB preliminarily to concur that:

1. salinity reduction breaches would occur during a storm event when the Napa River is highly turbid and additional sediment is unlikely to further increase the turbidity of the river;

2. DFG's experience with breaching levees with explosives indicates that a 5–10-foot-wide V shaped area of soil is removed with explosives to start the breach and most of the soil moves upward and deposits on the levee;

3. because most of the soil is deposited on the levee, most future instances of increased suspended sediment and turbidity (due to breach widening) would also occur during storm events when these levels are already highly elevated; and

4. breaches reach equilibrium fairly rapidly after several large storm events.

No changes to the Final EIS are proposed.

Response to Comment Number 5-18

Comment noted. Anoxic areas (areas without oxygen) are natural by-products of marsh ecosystems. Anoxic conditions occur predominantly in developed middle and upper marshes where material becomes trapped in the sediment and decays. This decomposition process can lead to the formation of methylmercury (a form of mercury that is bioavailable) which can be ingested by small organisms and magnified in the foodchain. The project sponsors anticipate that methylmercury monitoring will included in the monitoring plan and will coordinate these efforts with the Bay Delta Authority's science program.

Response to Comment Number 5-19

Comment noted. The project sponsors are working with the RWQCB to determine an appropriate sampling protocol prior to project implementation (if necessary) and during the salinity reduction process. The project sponsors have recently utilized a technique to minimize matrix interference and better evaluate the water quality samples; this technique will be used for future sampling efforts. The lower ponds will be sampled for salinity just prior to breaching; the upper ponds will be sampled for salinity and metals using the improved analysis method. No changes to the Final EIS are proposed.

Response to Comment Number 5-20

Comment noted. Other commentors suggested ways to expedite the bittern dilution process. The response to these issues is provided in Master Response 2. Bittern Dilution.

Response to Comment Number 5-21

Text was added to the Final EIS indicating that the discharge to the mixing chamber will be subject to a National Pollutant Discharge Elimination System (NPDES) permit.

The sentence on the bottom of page 4-5 was amended to read:

It is anticipated that the San Francisco Bay RWQCB would ~~not~~ impose WDRs on the discharge of bittern and an NPDES point-source discharge permit on the discharge of recycled water ~~proposed project because~~ although the project is considered a long-term beneficial water reclamation and wetland restoration project.

The following sentence was also added to WQ-3 Design, Operate, and Monitor Use of Recycled Water in Accordance with RWQCB Requirements:

The recycled water discharge to Pond 7 and the mixing chamber will be covered under an NPDES permit from the RWQCB.

Response to Comment Number 5-22

Comment noted.

Response to Comment Number 5-23

Comment noted. This alternative was eliminated because of the potential adverse effects on existing habitat.

Response to Comment Number 5-24

The issues raised in these comments were considered during project design, and mitigation has been provided where appropriate. Additional mitigation and minimization measures will be described in the Storm Water Pollution Prevention Plan (SWPPP) that will be prepared prior to construction.

Comment Letter 6

DEPARTMENT OF CONSERVATION

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GRAY DAVIS
GOVERNOR

June 3, 2003

Ms. Amy Hutzel
California State Coastal Conservancy
1330 Broadway, Suite 110
Oakland, CA 94612

Subject: SCH# 1998072074 – Draft Environmental Impact Report/Statement and Feasibility Study for the Napa River Salt Marsh Restoration Project: Napa, Solano and Sonoma Counties

Dear Ms. Hutzel:

The Department of Conservation's (Department) Division of Land Resource Protection staff have reviewed the document cited above. The proposed project consists of restoration of 9,460 acres of the Napa River Unit of the Napa-Sonoma Marshes Wildlife Area, located on the west side of the Napa River. The site is the former Napa salt pond complex, and the proposed project would restore the acreage to tidal wetlands and managed ponds that would support fish and wildlife populations. A number of high-salinity ponds in the proposed project area have large quantities and high concentrations of residual salts. Cargill Salt Company once manufactured salt in these ponds, but sold the ponds to California Department of Fish and Game in 1994. The project is analyzed on three levels: salinity reduction, habitat restoration, and water quality and delivery. Alternative 6 has been selected as the preferred alternative.

The document indicates that the area surrounding the project site is predominantly agricultural, consisting of grazing land and vineyards. The former Mare Island Naval Reservation is directly southeast, and Skaggs Island is west of the site. The former crystallizer ponds used by Cargill are directly east of Pond 8 on the other side of the Napa River. Residences are located directly east of Pond 8, along the Napa River on Edgerly Island. The document indicates that there are approximately 2.1 million tons of salt in the ponds. A breach of high salinity or bittern pond to a neighboring slough and adjacent property would result in significant damage to neighboring landowners' agricultural lands. The final document should discuss and analyze the specific potential environmental and economical impacts on privately and publicly held adjacent agricultural

6-1

lands, and the mitigation measures that would be implemented to alleviate these impacts should be consistent with the CALFED Record of Decision. 6-1 cont'd

Thank you for the opportunity to review this draft document. Please contact Jeannie Blakeslee at (916) 323-4943 if you have any questions regarding these comments, or if you would like to set up a meeting. Also, please send a copy of the final document to the Department when it becomes available.

Sincerely,

Dennis J. O'Bryant
Manager
Williamson Act Program

cc: State Clearinghouse

Letter #6. State of California, Department of Conservation, Division of Land Resource Protection

Response to Comment Number 6-1

The project is beneficial because it will reduce the likelihood of an unintentional breach of a high salinity or bittern pond to the adjacent sloughs and river. Intentional breaches on Ponds 3, 4, 5, and potentially on Pond 6/6A in 10 to 20 years, are designed to ensure minimal effects on aquatic resources and are not expected to affect neighboring landowners' agricultural land or the residences near Pond 8. Though this was identified as a potential effect on pages 3-11 and 3-18 of the Draft EIR/EIS, the latest project modeling indicates that slough velocities are not great enough to jeopardize the agricultural levees to the west of Pond 6/6A. In the event project monitoring identifies unintended erosion that could jeopardize adjacent agricultural lands, the problem would be corrected through the adaptive management process (i.e., habitat restoration breaches on the west side of Pond 6/6A could be closed). No additional changes to the Final EIS are proposed.

Making San Francisco Bay Better

June 30 2003

Ms. Amy Hutzel
California State Coastal Conservancy
1330 Broadway, Suite 110
Oakland, California 94612

SUBJECT: Napa River Salt Marsh Restoration Project
Napa, Solano and Sonoma Counties
Draft Environmental Impact Report/Environmental Impact Statement
State Clearinghouse No. 1998072074

Dear Ms. Hutzel:

On May 5, 2003, San Francisco Bay Conservation and Development Commission staff received the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Napa River Salt Marsh Restoration Project, proposed in the Napa River Unit of the Napa-Sonoma Marsh Wildlife Area (NSMWA), located just north of Highway 37 and just west of the Napa River, in Napa, Solano and Sonoma Counties. The proposed project involves reintroducing tidal action to several salt ponds and managing the remaining salt ponds for migratory waterfowl, shorebirds and anadromous and resident fish habitat. To accomplish this goal, the EIS/EIR identifies several different project alternatives that involve reducing salinity concentrations in the ponds by constructing new and repairing existing water control structures, and breaching existing levees, and using tertiary treated w recycled water to reduce salinity concentrations in the ponds. In addition, several habitat restoration options are proposed in the EIR/EIS that differ in the relative percentage of tidally influenced and managed pond habitat that would be provided with project implementation.

Although the Commission itself has not reviewed the environmental document, the staff comments are based on the McAteer-Petris Act and the San Francisco Bay Plan.

Jurisdiction

The EIS/EIR states that the project site was used by Cargill Salt Company for salt production up until the early 1990's, at which point salt production ceased and the site was sold to the State of California. The McAteer-Petris Act states that, "[s]alt ponds consisting of all areas which have been diked off from the Bay and have been used during the three years immediately preceding...1969...for the solar evaporation of Bay water in the course of salt production...." are within the jurisdiction of the Commission. In addition, some of the water control structures and levee breaches would involve work within the Commission's "certain waterway" jurisdiction. Therefore, authorization from the Commission would be necessary to construct the proposed project.

7-1

Bay Fill

The McAteer Petris Act states that, "...further filling of San Francisco Bay...should be authorized only when public benefits from fill clearly exceed the public detriment from the loss of water areas ..." and "fill in the Bay...should be authorized only if...the water area to be filled should be the minimum necessary to achieve the purpose of the fill...that the nature, location and extent of any such fill should be such that it will minimize harmful effects to the Bay Area, such, as the reduction or impairment of the volume, surface area or circulation of water, water quality, fertility of marshes or fish or wildlife resources..." 7-2

Depending on the project alternative that is selected, the project would potentially result in fill in salt ponds by placing new water control structures in the ponds, constructing new levees and repairing existing levees, and placing imported fill material. While not necessary for the purposes of the EIR/EIS, it will be important to demonstrate that the fill associated with the project complies with the McAteer Petris Act when the project proponents request authorization for the project from the Commission.

Salt Ponds and Other Managed Wetlands

Currently, the project site is designated as a wildlife refuge and a salt pond/wildlife refuge on Bay Plan Map Nos. 1 and 2. Additionally, the Bay Plan Map notes for the site state, "...[R]egional Restoration Goal for San Pablo Bay-Restore large areas of tidal marsh and enhance seasonal wetlands. Some of the inactive salt ponds should be managed to maximize their habitat functions for shorebirds and waterfowl, and others should be restored to tidal marsh...."

While the proposed project would be consistent with the Bay Plan wildlife refuge designation and the Bay Plan Map note for the site, the site is currently also designated as salt ponds in the Bay Plan. The San Francisco Bay Plan policies on salt ponds and other managed wetlands state, "...[a]s long as economically feasible, the salt ponds should be maintained in salt production...In addition, the salt production system should be respected (i.e., public agencies should not take for other projects any pond or portion of a pond that is a vital part of the production system.)...." The policies further state, if "...the owner of the salt ponds...desires to withdraw any of the ponds or marshes from their present uses, the public should make every effort to buy these lands, breach the existing dikes and reopen these areas to the Bay....Development of the ponds...should provide for retaining substantial amounts of open water, should provide for substantial public access to the Bay...."

While the site was sold to the State of California in the early 1990's and managed for wildlife purposes by the California Department of Fish and Game since the sale, the Commission has yet to authorize the change in use of the site from salt pond production to wildlife management. Therefore, to comply with the Bay Plan's policies on salt ponds, the project sponsors will need to demonstrate that management of the salt ponds for wildlife habitat would not affect the overall salt making capacity of Cargill. Once the project sponsors submit a permit application to the Commission for the project, the staff advises that the sponsors provide evidence from Cargill that the exclusion of the north bay ponds from Cargill's salt making operations would not have a negative effect on the overall salt making capacity of the Bay Area. 7-3

Tidal Marshes

The Bay Plan policies on tidal marshes state, "...[w]here and whenever possible, former tidal marshes and tidal flats that have been diked from the Bay should be restored to tidal action in order to replace lost historic wetlands or should be managed to provide important Bay habitat functions, such as resting, foraging and breeding habitat for fish, other aquatic organisms and wildlife. As recommended in the Baylands Ecosystem Habitat Goals report, around 65,000 acres of areas diked from the Bay should be restored to tidal action...." The policies further state, "[a]ny tidal restoration project should include clear and specific long-term and short-term biological and physical goals, and success criteria and a monitoring program to assess the sustainability of the project. Design and evaluation of the project should include an analysis of: (a) the effects of relative sea level rise; (b) the impact of the project on the Bay's sediment budget; (c) localized sediment erosion and accretion; (d) the role of tidal flows; (e) potential invasive species introduction, spread and their control; (f) rates of colonization by vegetation; (g) the expected use of the site by fish, other aquatic organisms and wildlife; and (h) site characterization. If success criteria are not met, appropriate corrective measures should be taken...". 7-4

To comply with the Commission's policies on tidal marshes, the project proponents will need to develop a restoration and monitoring plan for the site. The Commission's staff looks forward to working with the project sponsors to develop a restoration and monitoring plan that would comply with the Commission's policies.

The Bay Plan tidal marsh policies also state, "...[b]ased on scientific ecological analysis and consultation with the relevant federal agencies and state resource agencies, a minor amount of fill may be authorized to enhance or restore fish, other aquatic organisms or wildlife habitat if the Commission finds that no other method of enhancement or restoration except filling is feasible...."

The EIR/EIS states that fill would potentially be placed in some of the ponds to raise subsided areas to elevations suitable of supporting tidal marsh vegetation. More information will be needed regarding the placement of fill in ponds for habitat purposes to determine if the amount of fill, method of placement, location of fill material, etc., is consistent with the Commission's practices and policies.

Public Access

Section 66602 of the McAteer Petris Act states that, "...existing public access to the shoreline and waters of the San Francisco Bay is inadequate and that maximum feasible public access to the Bay, consistent with a proposed project should be provided...." Furthermore, the Bay Plan policies on public access state, "...[p]ublic access to some natural areas should be provided to permit study and enjoyment of these areas. However, some wildlife are sensitive to human intrusion. For this reason, projects in such areas should be carefully evaluated in consultation with the appropriate agencies to determine the appropriate location and type of access to be provided...". 7-5

The EIS/EIR states that the CDFG has prepared a draft recreation and public use plan for the Napa-Sonoma Marshes Wildlife Area that will be included in the management plan for the marsh area. The Commission will likely require a public access component be part of the proposed project. Therefore, staff advises the project proponents to provide more detail regarding the recreation and public use plan at the time the proponents submit a permit application to the Commission.

Thank you for providing staff with the opportunity to review and comment on the Draft EIR/EIS. This is a project whose basic goal it strongly supported by the Commission's law and policies. If you have any questions regarding this letter or the Commission's laws and policies, please feel free to call me at (415) 352-3659. I look forward to working with the project sponsors on this exciting project.

Sincerely,

MICHELLE BURT LEVENSON
Permit Analyst

cc: Nadell Gayou, State Resources Agency
Katie Shulte-Young, California State Clearinghouse
Brad Norton, Jones and Stokes

Letter #7. State of California, San Francisco Bay Conservation and Development Commission

Response to Comment Number 7-1

The project sponsors will seek a Bay Fill permit from the San Francisco Bay Conservation and Development Commission (BCDC).

Response to Comment Number 7-2

The project sponsors believe the Draft EIR/EIS provides information to support the conclusion that any "fill" will minimize harmful effects on the Bay and is expected to result in public benefits and enhancement of fish and wildlife resources. No fill beyond that needed to ensure successful salinity reduction or habitat restoration is proposed. Additional information will be provided as requested.

Response to Comment Number 7-3

Research on the historical and current salt production indicates the North Bay salt production was only a small fraction of salt production and is no longer needed. Furthermore, much of Cargill's salt production efforts have been consolidated to the South Bay. Cargill does not intend to produce salt at these facilities and is closing its North Bay facilities; they recently sold the crystallizer ponds on the east side of the Napa River to DFG. Based on discussions with Cargill, the project, including other projects such as the South Bay restoration project, is not expected to have a negative effect on the overall salt-making capacity of the Bay Area. No changes to the Final EIS are proposed.

Response to Comment Number 7-4

The project sponsors will work with the BCDC to ensure that the monitoring plan and Adaptive Management Plan are consistent with the BCDC's policies. Existing documents on the restoration project, including PWA's reports, provide a detailed analysis of the topics that must be addressed to demonstrate compliance with the requirements of the Bay Plan. No changes to the Final EIS are proposed.

Response to Comment Number 7-5

Comment noted. DFG is working on its public access plan. DFG will provide public access that is compatible with wildlife but cannot provide more extensive access as is indicated in response to Comment Letter #10. San Francisco Bay Trail Project. No additional changes to the Final EIS are proposed.

Comment Letter 8

June 16, 2003

Amy Hutzel
California State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612-

Subject: Draft EIR/EIS for the Napa River Salt Marsh Restoration Project

Dear Ms. Hutzel:

On behalf of the San Francisco Bay Trail Project, thank you for the opportunity to comment on the Draft EIR/EIS for the Napa River Salt Marsh Restoration Project.

The Bay Trail Project is an organization administered by the Association of Bay Area Governments (ABAG) that plans, promotes and advocates for implementation of a continuous shoreline trail system around San Francisco Bay. When complete, the trail will extend for over 400 miles passing through 47 cities and all nine Bay Area counties providing a recreation and commute corridor for walkers, runners, bicyclists, wildlife watchers and other outdoor enthusiasts. To date, 230 miles of the Bay Trail alignment has been developed.

As stated in the EIR/EIS, the adopted Bay Trail alignment follows highways in the North Bay east of the Napa River and north of the project site. But because this alignment extends along busy and dangerous roadways far from the Bay shoreline, the Bay Trail board has directed project staff to explore opportunities for a new continuous alignment closer to the Bay. Land ownership changes and restoration efforts along the edge of San Pablo Bay are beginning to open up opportunities for a new Bay Trail alignment near the Highway 37 corridor.

In 1998, the *North Bay Corridor Study* was completed for MTC and the Bay Trail Project in an effort to identify alternatives for a better Bay Trail alignment along the Highway 37 corridor. The study recommended that " . . . permitting or implementing agencies should integrate public access and recreational trail facilities into project designs if a protective dike or drainage control is established north of Highway 37." The intent of the recommendation was to establish a continuous off-street trail alignment between Marin County and the city of Vallejo.

In coordination with the Coastal Conservancy, the Bay Trail Project recently awarded a $35,000 grant to Sonoma County Regional Parks to conduct an in-depth trail alignment study. The study is currently underway and plans to identify a new continuous off-street alignment between the Petaluma River and Skaggs Island Road, as well as a connection

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north to the city of Sonoma. The grant project area terminates at the county boundary, but we are working to extend the trail system east through Napa and Solano counties.

In Solano County, we are currently working with U.S. Fish & Wildlife Service to incorporate a trail segment along the southern levee of the Cullinan Ranch property as part of the wetland restoration project on that parcel.

The EIR/EIS recommends trail and public access improvements within the vicinity of Ponds 1 and 1A including expansion of the existing Highway 37 pullout and trail improvements from the parking lot around the adjacent pond. Since there are no recreation/public access figures to use as reference for this description, we assume that the recommendation refers to a trail around Pond 1. Please provide a map showing the locations of trail staging areas, facility improvements and proposed trail levee access throughout the project area. 8-1

Ponds 1 and 1A are key pieces in the proposed North Bay shoreline Bay Trail alignment. To complete a continuous alignment, we would like to secure:

1. trail connections between the Cullinan Ranch levee and the levees adjacent to Ponds 1 and 1A
2. access to levees adjacent to Ponds 1 and 1A
3. future trail connections west into Sonoma County

It is not clear from the EIR/EIS diagrams whether levee connections as described above are part of the project. Please provide clarification on levee connections between the project site and surrounding parcels. In addition, please identify proposed levee breaches that will preclude extended trail access within the project area and between adjacent parcels. 8-2

Because North Bay wetland restoration projects are moving forward independently of each other, efforts to identify a continuous trail system are also proposed in a piecemeal fashion. Expansion of trail facilities as suggested in this letter will not significantly increase trail use because the project area is separated from established trail segments.

We agree that this large restoration project can accommodate low-impact recreational uses without interfering with wildlife enhancement and protection of endangered species, especially near the Highway 37 corridor. We encourage this project to consider and allow trail access on Pond 1 and 1A levees and future levee connections east and west of Ponds 1 and 1A.

Please contact me at 510-464-7909 or laurat@abag.ca.gov if you have questions.

Sincerely,

Laura Thompson

Laura Thompson
Bay Trail Planner

cc: Shirin Tolle, U.S. Army Corps of Engineers

Letter # 8. San Francisco Bay Trail Project

Response to Comment Number 8-1

The improvements will be limited mainly to the SR 37 pullout, adjacent to the road at the southeast corner of Pond 1 as illustrated in the new Figure 15-1 in the Final EIS. This may include paving the existing parking area and erecting interpretive signs. Improvements to the levee road are mainly for levee maintenance and allowing continued access to a pump station. A trail will not be constructed around Pond 1. DFG will continue to allow non-motorized access approximately 1 mile down the east levee road on Pond 1 until reaching the power towers. The public will be able to continue using the road for access to fishing, hunting, and other activities. Currently, there is no access allowed past the power towers for administrative and safety reasons. There is no plan to create new access or trails north of the power towers, and a map is not included because of the limited access that will be provided. Regarding the trail alignment, DFG will prepare an area management plan in the future. At that time, DFG will examine appropriate uses of the area according to unit needs and capabilities. The plan will have a recreational component that will address future trail connectivity. Currently, DFG cannot approve the specific request of obtaining trail connections between the Cullinan Ranch and adjacent levees on Ponds 1 and 1A.

Because of the alignment of SR 37 and the ponds, such a trail alignment is infeasible. Ponded water comes up to the SR 37 Caltrans right-of-way, not leaving much room for a trail within their easements. The Cullinan Ranch levee trail is possible only because of the proposed restoration, which includes levee reconfiguration and widening of SR 37. There are no such plans to reconfigure Ponds 1 and 1A or widen SR 37.

The levees around Ponds 1 and 1A are separated by water conveyance systems and would not allow for a continuous trail. Additionally, DFG is not interested in loop trails within the NSMWA at this time because of potential wildlife disturbance and habitat destruction. DFG may consider spur trails on service roads depending upon wildlife disturbance, damage to roads, time of year, and other factors. These recreational needs will be addressed during the completion of the area management plan.

Response to Comment Number 8-2

Proposed levee breaches are illustrated on Figure 2-17. There are no trails within the project area that will be affected by breaches. The breaches will not preclude any new trail construction; the ponds that will be breached are surrounded by sloughs and accessible only by boat.

SONOMA COUNTY WATER AGENCY

Comment Letter 9

FILE:WC/45-0-1 NAPA SALT MARSH RESTORATION

June 12, 2003

Amy Hutzel
California State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612

RE: DRAFT NAPA RIVER SALT MARSH RESTORATION PROJECT ENVIRONMENTAL IMPACT REPORT

Dear Amy:

Please find the enclosed comments on the Draft Napa River Salt Marsh Restoration Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS).

Thank you for the opportunity to review the EIR/EIS. The Sonoma County Water Agency has been involved and supportive of this project for over six years. The Agency is pleased to see the Napa River Salt Marsh Restoration Project moving forward.

Please feel free to contact me at (707) 547-1908 or via email at seanw@scwa.ca.gov if you have any questions regarding our comments.

Sincerely,

Sean K. White
Principal Environmental Specialist

c Shirin Tolle

rs3/u/cl/rw/fisheries/white/DEIR comments

RECEIVED
JUN 16 2003
COASTAL CONSERVANCY
OAKLAND, CALIF.

P.O. Box 11628 - Santa Rosa, CA 95406 - 2150 W. College Avenue - Santa Rosa, CA 95401 - (707) 526-5370 - Fax (707) 544-6123

General Comments

After reviewing the Draft EIR/EIS, the Sonoma County Water Agency (SCWA) believes that Segment 1 of the Sonoma Pipeline (see page 2-36) could be reconfigured to be more efficient and improve reliability. Instead of starting the parallel pipeline at the existing "flow splitting structure" the Agency believes that the parallel line should extend directly to the Sonoma Valley County Sanitation District (SVCSD) Wastewater Treatment Plant (WWTP). This would allow the proposed pumping facility to be located at the WWTP. Constructing the pump at the WWTP would have the advantages of back-up electrical facilities, centralized maintenance and repair, as well as enhanced operational flexibility. In addition, locating the pumping facility at the WWTP has the potential for eliminating redundant structures, potential cost efficiencies, and reduced environmental impacts. 9-1

Locating the pump at the WWTP would require the construction of an additional 4,600 linear feet of 24-inch parallel pipeline (from the proposed starting point to the WWTP). The SCWA is willing to pay for this additional parallel line as a "betterment" within the U.S. Army Corps of Engineers process. The Agency would like to request that this revised alignment be considered in the Final EIR/EIS.

Specific Comments

Page 2-38: Segment 2 would also operate under pressurized flow conditions but would be designed for a maximum peak wet-weather flow of 50 mgd, which would only be experienced under potential future phases (see Section 2.5.5.2, "Water Delivery Program Component"). 9-2

Comment: The reference should read see Section 2.5.3.2.

Figure 2-10

Comment: The conveyance for the CAC pipeline is shown as stopping at Pond 8. This gives the impression that the CAC water does not reach the Pond 7/7A "donut." The Figure should be modified to show the existing conveyances that are proposed for the remaining portion of CAC alignment. 9-3

Page 3-8: Treated wastewater from SVCSD is discharged into Hudeman Slough during the winter months, but SVCSD has a zero-discharge limit from May through the end of October.

Comment: Treated wastewater is not directly discharged into Hudeman Slough. SVCSD discharges into Ringstrom Bay and the Hudeman Slough Mitigation Units, which drain to Hudeman Slough and other unnamed tributaries to San Pablo Bay. During the "non-discharge" season SVCSD still discharges to Ringstrom Bay and the Hudeman Slough Mitigation Units (as required by permit conditions), however the conveyances to the sloughs are closed. 9-4

Page 4-42: SVCSD currently discharges treated wastewater into area waterways during the wet season. SVCSD would change its discharge location from Schell Slough to the Napa River Salt Marsh Restoration Project site. 9-5

Comment: SVCSD will add the Napa River Salt Marsh Restoration Project as a point of discharge. SVCSD will not move its discharge point at Schell Slough. SVCSD will retain the Schell Slough discharge in case of emergencies or operational problems with the proposed project.

Page 18-4: Table 18-2.

Comment: The table entitled *Other Infrastructure Improvement Projects Anticipated to Occur within the North Bay Region* should list SVCSD as the agency responsible for potential upgrades at the SVCSD, not the SCWA. The upgrade from secondary to tertiary treatment is listed in the table as scheduled for the summer 2003, the upgrade has been delayed until the summer of 2004. 9-6

Page 18-9: The most notable potential for cumulative impacts on biological resources would occur in conjunction with the Water Delivery Option components, construction of SCWA's new reclaimed water storage reservoir, and possibly the City of Petaluma's recycled water improvements. 9-7

Comment: The reservoir referred to in the above language is a SVCSD facility, not a SCWA facility. The text should be updated to indicate that the reservoir construction has been completed, and is no longer a potential future project.

Page 18-12: As described in Chapter 6, "Biological Resources—Wildlife," construction of the pipelines under the Project and Program Components of the Water Delivery Option poses the potential for significant impacts on sensitive vegetation and wildlife species. In addition, construction of SCWA's new reservoir would occur in an area near Schell Slough that could contribute to indirect impacts on sensitive biological resources. 9-8

Comment: See comments for Page 18-9.

Letter #9. Sonoma County Water Agency

Response to Comment Number 9-1

The additional segment of pipeline from the SVCSD WWTP to the "flow splitting structure" is included in the Final EIS. Chapter 2 in Volume 1 ("Site Description, Options, and Alternatives") contains the description of the relocated pumping plant. Additional information on extending the pipeline was not integrated at this time based on discussions with Sonoma County Water Agency.

Response to Comment Number 9-2

This section reference was changed in the Final EIS.

Response to Comment Number 9-3

Figure 2-10 was modified in the Final EIS.

Response to Comment Number 9-4

This change was incorporated into Section 3.1.4.1 of the Final EIS.

Response to Comment Number 9-5

This change was integrated into Section 4.2.7.2 of the Final EIS.

Response to Comment Number 9-6

This change was integrated into Table 18-2 of the Final EIS.

Response to Comment Number 9-7

This change was integrated into Section 18.2.5.2 of the Final EIS.

Response to Comment Number 9-8

This change was integrated into Section 18.2.6.2 of the Final EIS.

3.4 Nonprofit Organizations

Comment Letter 10

CITIZENS COMMITTEE TO COMPLETE THE REFUGE

453 Tennessee Lane, Palo Alto CA 94306 Tel 650 493-5540 Fax 650 494-7640 e-mail: marsh@refuge.org

California State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612
Attn: Amy Hutzel
Fax: 510-286-0470
ahutzel@scc.ca.gov

June 16, 2003

U.S. Army Corps of Engineers
San Francisco District
333 Market Street, 7th Floor
San Francisco, CA 94105
Attn: Shirin Tolle
S.Tolle@spd02.usace.army.mil

California Department of Fish and Game
7329 Silverado Trail
Napa, CA 94558
Attn: Larry Wyckoff

Re: Draft Napa River Salt Marsh Restoration Project, Environmental Impact Report/Environmental Impact Statement, date April 2003

Dear Ms. Hutzel, Ms. Tolle, and Mr. Wyckoff,

Thank you for the opportunity to provide comments on the Draft Napa River Salt Marsh Restoration Project, Environmental Impact Report/Environmental Impact Statement, date April 2003. As you are aware, the Citizens Committee to Complete the Refuge has an ongoing history of interest in wetlands protection, wetlands restoration and wetlands acquisition. The Committee was originally formed in 1965. Our senior members were part of a group of citizens who became alarmed at the degradation of the Bay and its wetlands. We joined together, and with the support of Congressman Don Edwards, requested that the Congress establish a Wildlife Refuge. The process took 7 long years and in 1972 the legislation was passed to form the San Francisco Bay National Wildlife Refuge. We turned to Mr. Edwards again, and in 1988 (the first year he submitted it) his legislation to double the size of the Refuge was signed into law.

The intent of all this work has been to ensure that the Bay and its *natural* ecosystems would be preserved for future generations to enjoy. We have worked to ensure that salt ponds would be restored to *natural* salt marsh ecosystems composed of *native* San Francisco Bay species such as the endangered California clapper rail and salt marsh harvest mouse.

We recognize action must be taken to correct the unfortunate condition of the Napa salt ponds. We support Habitat Restoration Option 1: Mixture of Tidal Marsh and Managed Ponds, which retains ponds 1, 1A, 2, and 2A as they are, the restoration of ponds 3 and 4/5 to tidal marsh, manages ponds 7, 7A, and 8 as ponds once salinity reduction has been completed, and reserves pond 6/6A as either a managed pond or provides for the conversion to tidal marsh if appropriate.

In discussions regarding the South Bay Salt Pond Restoration Project, we have expressed the concern that determination of appropriate habitat restoration for each salt pond must be viewed in terms of what is feasible physically and biologically, what is appropriate to address sensitive species needs, and what is appropriate in a regional context. While the Napa River Salt Marsh Restoration Project, the Cullinan Ranch Restoration Project, and the Skaggs Island Restoration Project, all have different funding sources and responsible parties, to what degree has large-scale coordination occurred to ensure the appropriate habitats are being restored in the most feasible (physically, biologically, and economically) sites? For example, would Pond 2 be better restored to tidal marsh, while deep water habitat is created elsewhere? 10-1

We support Salinity Reduction Option 1C: Napa River and Napa Slough Discharge with Breaches of Ponds 3 and 4/5. This is based upon the monitoring of salinity in the adjacent sloughs following the unintentional and emergency breaches of Pond 3 indicating "the small amounts of tidal exchange that occurs through these ditches has a negligible effect on water quality in the adjacent sloughs."

We do not support the Water Delivery Option. The installation of infrastructure for the delivery of tertiary recycled water to this region will have a significant adverse growth inducing impact along portions of the proposed pipeline alignment. Napa and Solano counties are experiencing tremendous development pressure, one has only to look at changes in aerial photographs of the area over the past 5 to 10 years. In addition, the region is experiencing an exponential increase in the acreage of grazing lands converted to vineyards. Page 2-10 states: 10-2

> ...If recycled water is not used for desalination, it is likely that the pipeline would not be built.

As stated in the EIR/EIS (page S-15):

> ...implementation of the Water Delivery Option could have a growth-inducing impact relative to the potential future use of recycled water for agricultural irrigation. The growth of agricultural activity in the north bay region is *currently constrained by the availability of water suitable for irrigation*. The provision of recycled water suitable for agricultural irrigation could foster economic growth in the north bay region, especially relative to vineyard operations in Napa and Sonoma Counties. (emphasis added)

We support the concept of utilizing tertiary recycled water for *existing* vineyards and agricultural crops. The purpose of the current project is for wetlands restoration, not to foster economic growth. 10-2

In addition, we have concerns regarding the introduction of nutrient enriched wastewaters to the proposed restoration areas. Large volumes of wastewater discharge into the south bay have had adverse impacts on the diversity and quality of the marshes surrounding the San Jose wastewater discharge point. 10-3

We recognize the problem of levee instability, and the proximity of the high saline and bittern ponds to the Napa River. What is the condition of the levees at the Napa Plant site? One potential solution that has not been raised in the EIR/EIS is pumping bittern and potentially the high saline waters in ponds 7A and 8 into the interior crystallizers or wash pond in the newly acquired Napa Plant site. While we recognize this only defers the issue, it might provide enough time to devise another remedy that does not have the enormous grow-inducing outcome of the Water Delivery Option. 10-4

We commend the three agencies and their consultants on the openness with which the process has been conducted and the accessibility of the information provided in the EIR/EIS. We urge you to continue to inform and involve the public in the decision-making process during the implementation and adaptive management phases of this crucial restoration project. Thank you once again for the opportunity to provide comment. 10-5

Sincerely,

Florence M LaRiviere

Florence M. LaRiviere
Chairperson

Letter # 10. San Francisco Bay Citizens Committee to Complete the Refuge

Response to Comment Number 10-1

Large-scale restoration planning and coordination are occurring among USFWS, DFG, Coastal Conservancy, and the many stakeholders participating in baywide restoration planning. The physical and biological priorities and outcomes throughout San Francisco Bay have been shaped by the people who contributed to documents such as *Bayland Ecosystems Habitat Goals, Restoring the Estuary, Comprehensive Conservation and Management Plan, San Francisco Bay Plan, the Water Quality Control Plan,* and many others. These priorities continue to be shaped by the working groups and science advisory panels that exist in the Bay Area.

Specifically, DFG does not support the conversion of Pond 2 to tidal marsh, and the USFWS is not interested in a land exchange where they maintain deepwater habitat (see also Master Response 5. Land Exchange Alternative). No changes to the Final EIS are proposed.

Response to Comment Number 10-2

As Section 18.3.3 explains, the potential conversion from hay farming or grazing land to vineyard would not cause substantial environmental effects; therefore, these impacts would be less than significant. For more information please also see Master Response 6. Recycled Water and Growth Inducement.

Response to Comment Number 10-3

The project sponsors are proposing a measured and controlled discharge of a mix of bittern, Pond 7, Pond 7A, Pond 8 water, and recycled water into Napa Slough. Water will not be discharged directly to the ponds. These discharges will be carefully monitored to ensure they do not exceed RWQCB standards, which are protective of natural resources. Recycled water would be used as make-up water for Pond 7, but no adverse effects are anticipated (SCWA 2003).

Response to Comment Number 10-4

The levees at the Napa Plant site are slightly better than in the project area, but there are other reasons this site will not work as explained in Master Response 2. Bittern Dilution.

Response to Comment Number 10-5

Comment noted. The project sponsors will continue to keep the public apprised of project development by publicizing the project through mass media outlets, mailing to members of the public and others listed in the project sponsor's database, providing opportunities for commenting during the permit process, and convening meetings of the NSMRG. One remaining formal public involvement opportunity remains when the Final EIS is issued. The Corps will receive public comments for 30 days after the Final EIS is issued.

Comment Letter 11

Marin Audubon Society Box 599

Post-it® Fax Note 7671 | Date 6/16 | # of pages ▶ 2
To Amy Hutzel | From B. Salzman
Co./Dept. SCC | Co. MAS
Phone # | Phone # 415-924-6057
Fax # | Fax #

June 16, 200_

Amy Hutzel
California Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, CA 94612

Shirin Tolle
Army Corps of Engineers, SF District
333 Market Street
San Francisco, CA 94105

RE: DEIS/R FOR NAPA MARSH PROJECT

Dear Ms.Hutzel and Tolle:

The Habitat Restoration Option 1: Mixture of Tidal Marsh and Managed Ponds appears to be most consistent with the Goals Project recommendations and with Marin Audubon's habitat priorities. This alternative also has most of the benefits of the "Tidal Marsh Emphasis" alternative, because it includes all ponds adjacent to the Napa River as restored tidal marsh, where the quality, quantity and rate of tidal marsh restoration are likely to be greatest. This conservative, balanced mix will provide land managers with flexibility to modify the ratio of habitat types and locations in the future, when results of the project are better understood.

We are concerned that deep-water habitat be provided for Canvasback and Scaup. To achieve this goal, we suggest that the Land Exchange alternative, that would enable Cullinan Ranch to be restored to deep-water ponded habitat, be reconsidered. None of the current alternatives assure habitat for these important species even though the majority of the overwintering populations of Cans and Scaup are often found in the North Bay. The fact that Congress originally approved funding for tidal marsh restoration does not mean that this cannot be changed. In view of the current abundance of property suitable for tidal marsh restoration and the lack of suitable deep water habitat, Congress can, and should, be requested to change its mandate. We see no reason why they would not do so. 11-1

In addition, some of the features in option 4, "Accelerated Restoration" could be incorporated selectively in Option 1 to the degree feasible, based on project final design, habitat restoration priorities, and budget. It may be considered an adaptive management or optimization feature for alternative 1 rather than a competing option. 11-2

Salinity reduction, option 1C, based on breached pond 3 and discharge to Napa Slough and Napa River, is preferable over other options. Use of recycled wastewater to desalt ponds may be acceptable if wastewater discharge is limited to duration and amount needed to achieve restoration and marsh management objectives. The large commitment of resources to construct wastewater pipelines, and increasing urban growth, may cause future political pressure to retain the Napa Marsh as an expedient discharge point, and rationalize excessive discharge of

wastewater. The excessive discharge of nutrient-enriched wastewater (even tertiary treated) can have significant adverse impacts on marsh habitat diversity and quality, as indicated by the sloughs affected by San Jose wastewater discharges in south San Francisco Bay. The Napa-Sonoma Marsh restoration should be protected against this fate. The extensive vineyards north of the Napa -Sonoma Marsh would be an environmentally superior area to discharge recycled wastewater. 11-3

We commend the Coastal Conservancy, Department of Fish and Game, and the consultant team for providing an understandable assessment of an unprecedented, complex, large wetland restoration in the San Francisco Estuary. It will provide a useful framework for both the initial project and ongoing decisionmaking. I would encourage the lead agencies to continue to involve the public in adaptive management decisions, and provide readily accessible information on the results of the project throughout its progress. 11-4

Thank you for considering our comments.

Sincerely,

Barbara Salzman
for the Conservation Committee

Letter #11. Marin Audubon Society

Response to Comment Number 11-1

Regional cumulative effects of the loss of open water habitat are described in Chapter 18 and indicate that the overall changes should be monitored but are expected to be less than significant. The land exchange alternative was explored but was deemed infeasible because USFWS's purchase agreement mandated that Cullinan Ranch be restored to tidal marsh. Discussions with the USFWS have also indicated their continued objective of restoring the property to tidal marsh (see Master Response 5. Land Exchange Alternative).

Response to Comment Number 11-2

Comment noted. Selected features may be included in the final design; however DFG still prefers the process of natural accretion to filling for accelerated restoration. No changes to the Final EIS are proposed.

Response to Comment Number 11-3

The project sponsors are proposing a measured and controlled discharge of a mix of bittern, Pond 7, Pond 7A, Pond 8 water, and recycled water into Napa Slough. These discharges will be carefully monitored to ensure they do not exceed RWQCB standards, which are protective of natural resources. Also, these discharges are not directly to the wetlands and are unlikely to affect marsh habitat diversity and quality (see Master Response 7. Recycled Water and Water Quality). SCWA plans to offer recycled water to the nearby vineyards as a disposal option depending on the need for the water to be used for the restoration of Pond 7.

Response to Comment Number 11-4

Comment noted. The project sponsors will continue to host the NSMRG meetings, which will provide updates on data collection results and adaptive management decisions. Several other opportunities for public input are outlined in the Master Response 4. Future Public Involvement.

3.5 Individuals

Comment Letter 12

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Annapolis, California 95412

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baye@earthlink.net

Amy Hutzel
California State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612
ahutzel@scc.ca.gov

Shirin Tolle
U.S. Army Corps of Engineers, San Francisco District
333 Market St. 7th floor
San Francisco, CA 94105

June 16, 2003

SUBJECT: Comments on Draft EIR/S, Napa River Salt Marsh Restoration Project

Dear Ms. Hutzel and Ms. Tolle:

Please accept my comments on the Draft EIR/S for the Napa River Salt Marsh Restoration project. I congratulate the lead agencies, as well as California Department of Fish and Game and consultant staff, for preparing a clear, thorough EIR/S on a challenging multi-decade project with many complex and uncertain environmental variables.

General comments

I agree with the project purpose and need, and I support the proposed alternative design in general. I hope that the project will be refined during final design to develop optimal specific habitat structure for the full suite of fish, wildlife, and plants affected. These technical details of implementation, though beyond the scope of the NEPA/CEQA document, will influence the ecological outcome of the project at least as much as the issues featured now for analysis, such as desalinization methods. For example, the structure and composition of

12-1

managed ponds (tidal range, salinity range, submerged aquatic vegetation, interspersion of marsh within ponds, depth gradients, bathymetry) was not designed or evaluated beyond the classification of "deepwater pond" and "ponds". This necessarily leaves much uncertainty about the range of waterfowl and shorebird species likely to utilize the new pond habitat, and to what extent, compared with existing conditions. Obviously, the EIR/S must make broad assumptions to deal with important deferred details of project design. 12-1 cont'd

I fully expect that the habitat planning options evaluated in the EIR/S will, and should, be re-evaluated as further wetland restoration proceeds around the Napa project. The potential future availability of diked baylands for restoration as fresh-brackish lagoons along upper Sonoma Creek, and the potential availability of Skaggs Island units for tidal marsh and shallow lagoon restoration to the west of the salt ponds, would justify reconfiguration and reassignment of habitat types in the region. Already, the acquisition of the "east side" Napa salt facility's crystallizers justifies reconsideration of the regional distribution of reconditioned playa-like salt pan habitat for high tide shorebird roosting.

The only potential significant adverse long-term impact that concerns me is the subsequent fate of any wastewater pipeline and discharge systems used to desalinize the ponds in the short-term. I acknowledge the utility of tertiary treated wastewater for dilution and flushing of accumulated salt pond brines and evaporites. I am concerned, however, that the massive investment in infrastructure required for such a pipeline, the continuing urban growth of southern Sonoma County, and the expedience of discharge in the Napa Marsh, may cause undue pressure to continue wastewater discharges there beyond their original purpose of desalinization. Persistent, year-round discharge of freshwater enriched with biologically available forms of nitrogen and phosphorus (residual in tertiary treated wastewater) would risk converting large areas of the Napa Marsh to relatively homogeneous stands of tules and cattails, like south San Francisco Bay sloughs receiving urban wastewater from San Jose. I recommend that as a condition of accepting wastewater at the Napa Marsh, the dischargers secure an agricultural disposal alternative (e.g. vineyard irrigation) to ensure that wastewater discharge to the estuary can be limited only to seasonal flows beneficial to natural species diversity of the Napa Marsh. Because of the potential for project delays if desalinization depends on pipeline approval and construction, I encourage pursuit of alternatives that don't require wastewater discharges. 12-2

There is one potentially important "option" (sub-alternative) for desalinization that was not considered in the alternatives analysis because it was not known until late in the preparation of the EIR/S. It is a major variation of the "screened out" alternative of concentrating brine to one or more central ponds (p. S-4, S-5). The acquisition of the "east side" Napa salt production facility (crystallizers, pickle ponds, wash pond) by the State of California represents a potential addition to storage capacity of hypersaline brines and bittern, particularly the wash pond. The wash pond is a relatively deep basin used to wash mud off harvested salt with saturated brines. The capacity of this pond, and other ponds, to contain stored bittern and brine depends in part on pond depth, and in part on rehabilitation of levees. I would encourage the lead agencies to prepare a preliminary evaluation of the storage capacity of the Napa facility (especially the wash pond) to hold translocated brine/bittern from ponds 6 and 7. If this represents a significant reduction in the duration of brine/bittern discharge, or duration of desalinization, it should be evaluated further as a method of accelerating habitat restoration of the "west side" ponds. If this were feasible, it could contribute significantly to the project's goals. 12-3

Specific comments

S.2 (p. S-2) Purpose and need. The statement of purpose and need should make explicit the impossibility of maintaining the system as either a "fallow", derelict salt pond system, or the infeasibility of maintaining it as an operating solar salt facility. The statement of need mentions deterioration, but does not emphasize the pace or magnitude of the system's collapse in the absence of solar salt production or rehabilitation as tidal habitat. Given that the existing condition is not sustainable, the need for restoration (or conversion) is self-generated by the system; it is not merely desirable. This is relevant to analysis of the project's economics in the long-term, as well as its ecology. 12-4

S.3. Screening of alternatives. See general comments, above, for discussion of using the east side Napa salt plant facility (wash pond) as storage capacity for bittern and brine. 12-5

S.5.2.2. San Pablo Bay discharge. This alternative (not proposed) is unacceptable because it would sacrifice a highly valuable existing brackish lagoon and tidal flat system (ponds 1, 1A) that has developed since the site has been managed with choked tidal flows by CDFG. The neap-tide flats of these ponds are highly valuable shorebird habitat, and may be submerged by high pond water elevations during discharge. 12-6

S.5.3. Water delivery. The evaluation of water delivery failed to consider potential significant growth-inducing impacts of a regional wastewater pipeline with a secure discharge point. In particular, the recent revived proposal of major new commercial development at Sears Point, exempt from regulation, indicates that constraints of wastewater discharge in previously undeveloped lands could be alleviated by connection to a regional wastewater pipeline. Figure S-9 shows a potential alignment along Highway 37, adjacent to the proposed casino development. This may cause or contribute to a significant growth-inducing impact in the sensitive Port Sonoma/Sears Point corridor. 12-7

S.5.4.1. I agree with the selection of Habitat Restoration Option 1 (mixed pond and tidal marsh) over "tidal marsh emphasis" (S.5.4.2). The mix option affords more flexibility in future wetland management, hedges against uncertainty of wetland restoration outcomes, and offers essentially the same tidal marsh habitat benefits as the "tidal emphasis" alternative within a 50 year planning period – and perhaps more benefits. In the "mix" alternative, all ponds along the Napa River, closest to tidal sources of sediment and salinity, are converted to tidal marsh. The ponds retained as shallow submerged habitat provide reasonable buffering to waterfowl and shorebird habitat changes compared with existing (degraded salt pond) conditions. The "mix" also allows for future discretion over pond-to-tidal marsh conversion if superior ponded habitat area and quality is developed in the northern reaches of the Napa-Sonoma Marsh complex in future decades. 12-8

S.5.4.2. "Accelerated Restoration" is most appropriately considered a design modification of all other alternatives, rather than a competing alternative. I doubt that it is justified in full as a stand-alone alternative. Some aspects should be incorporated into the "mix" habitat alternative (1) to an extend indicated by final design and budget constraints. Of all "accelerated" restoration tactics, the grading of upland habitat on levees to wider high marsh zones (gumplant association) is the most beneficial to resident marsh wildlife. Creation of low channel levees, proportional in size with channel size, would also be beneficial for larger channels. 12-9

The "accelerated restoration" alternative is imbalanced, however, in addressing only enhancement of tidal marsh. Many "accelerated" habitat features could also be designed for optimal waterfowl and shorebird habitats in managed ponds, such as gently sloping unvegetated flats at pond margins, areas of submerged aquatic vegetation, and creation of confined emergent marsh berms to create

sheltered local coves, and increase cover. These are probably also unlikely to be used as a full and complete alternative, but may offer an array of waterbird habitat design enhancements. 12-9 cont'd

1.9.1.1. Use of heuristic v. predictive models in tidal marsh forecasts

The use of models as heuristic (instructive, exploratory) or predictive tools should be distinguished in presenting model results to the public and resource agencies. To my knowledge, there are no physical or ecological models available which have been empirically tested and demonstrate the ability to predict with accuracy the long-term development of any tidal marsh ecosystems. If models are presented as predictive, engineering planning aids, it is important to state (a) whether the models have been tested empirically (i.e. comparison of predictions with observed results), and how accurately the model has performed. I doubt that the development of tidal marshes can be predicted accurately enough to compare habitat development schedules among alternatives (e.g. Fig. 2-19, 2-22, etc.). There is a major gap between purely physical models and ecological models that actually address habitat. It is important to disclose the uncertainty of model predictions of long-term marsh development, and the simplifying assumptions needed to make them. The major sources of error in prediction should also be stated. This would prevent the mistaken public impression that restoration of wetland ecosystems is as predictable as physical engineering of their earthen templates. 12-10

2.3.1.1. (p. 2-8) Note that the 7th bullet is not very compatible with pond management. 12-11

2.3.3. (p. 2-10) The benefit of recycled water use could be fully realized if it is diverted to agricultural (vineyard) irrigation following pond desalinization. Continued aseasonal discharges of wastewater into the tidal sloughs of the Napa Marsh would have a significant adverse impact on the species diversity of the restored marsh system. 12-12

2.4.4.3. (p. 2-15) Land exchange with USFWS for Cullinan. Please refer to the statutory language of NEPA, and EPA guidance on the range of reasonable alternatives (40 Q&A's), regarding the consideration of alternatives that promote the policies of NEPA (harmonious use of resources) but are not consistent with current laws or budget appropriations. If the land swap contemplated could better integrate wetland restoration in the region, this justifies identifying the action in a NEPA document, so lawmakers may re-evaluate past policies and 12-13

decisions. This is an statutory purpose of NEPA, not an impediment to feasibility. I agree that Cullinan is well-suited to slow tidal restoration over many decades, and is likely to provide persistent deepwater habitat for diving ducks. 12-13 cont'd

2.5.4.1. (p. 2-42) minor clarification: microtidal marsh refers to marsh with small tidal range, including marshes with naturally small tidal ranges (e.g. Gulf of Mexico). Tidal *choking* (colloquially, "muting") is caused by barriers or constrictions to tidal flows, such as bars, shoals, levee breaches, tidegates, damping tidal range relative to the tidal source. Terminology is derived from the peer-reviewed scientific literature on coastal lagoons and marshes. 12-14

2.5.4.1. (p. 2-44). Colonization by tidal marsh vegetation is dependent on more than tidal elevation. The minimum tidal elevations for pioneer colonization of mudflats by vegetative (clonal) fragments of cordgrass and tules (rhizome fragments, peat fragments with rhizomes, or artificial transplants) are much lower than for seedlings. Low marsh may start earlier if vegetative fragments are involved. Another key factor for early plant colonization is potential for initial damping of tidal range by undersized breaches. Damping of tidal range within a breached salt pond can facilitate rapid seedling colonization on surfaces with relatively long emergence periods in the tidal cycle, even when these occur at absolute elevations below seedling tolerances in full tidal conditions. Plants established by seedling growth during damped tidal phases can survive and spread rapidly when full tidal range is restored. This was evident during the early stages of tidal restoration in Pond 2A: pickleweed was more abundant than cordgrass/bulrush in 1995, when tides were damped and the pond bed was firm enough to walk on. Subsequently, full tidal range converted the vegetation to predominant cordgrass/bulrush, and deposited a thicker, soft bay mud stratum. Initial tidal damping may be used to radically alter the initial type and time of establishment of pioneer tidal marsh vegetation. Establishment of seedlings is also strongly influenced by stability and roughness of the substrate, controlling the availability of seedling microsites ("safe sites") where seedlings can be physically secured. 12-15

The assumptions regarding conversion of low marsh to middle marsh, and middle to high marsh vegetation zones, are unrealistic and invalid. Marsh accretion and vegetation change occurs over gradients in relation to sediment transport, decreasing with distance from tidal channels. The relative contribution of organic matter (plant residues) and mineral sediment also varies with position in the marsh. Succession from mudflat to low marsh is often very 12-16

rapid, but succession from cordgrass/bulrush marsh to pickleweed/saltgrass or pure alkali bulrush is highly variable. | 12-16 cont'd

2.7.3.1. (p. 2-66) Vegetation transects are probably impractical for use over hundreds of acres of soft marsh-mudflat successsion over multiple tidal creek systems. Stratified random sampling would be more appropriate for the heterogeneous early succession marsh patterns, if terrestrial methods of sampling are used. Given the paucity of early succession plant species in tidal marshes, use of high-resolution color infrared photographs would provide a better record (and more analyzable data through GIS) than dangerous, expensive, sparse transects. Transects are designed to analyze gradients rather than represent large stands of variable vegetation in complex patterns. | 12-17

2.7.3.2. (p. 2-67). For balance, primary productivity of tidal marshes should also be sampled to avoid bias in assessment of productivity among different wetland habitat types. | 12-18

3.2.8.4. (p. 3-18) Mitigation measure H-3 should be modified to be as specific as mitigation H-4. As presented, H-3 is purely procedural, and lacks substantive actions needed for CEQA mitigation. It also may allow for riprap, which would be highly inappropriate for a tidal marsh restoration; riprap is not included in MM H-4. | 12-19

4.1.3.2. The discussion of suspended sediment, and associated figures, do not indicate which of the sample depths and locations are most indicative of sediment supply to the restored Napa ponds. The discussion also does not indicate the range of suspended sediment at the leading edge of the rising tide waterline over mudflats and channels, directly affecting marsh/mudflat surfaces in restored ponds. | 12-20

4.1.4.5. (p. 4-22). The testing of relative toxicity in bittern-brine mixtures for the desalinition design was as commendable as the results (lower bittern toxiticy than precedents) were surprising. If these data are used as a basis for bittern dilution and discharge criteria, it is important to calibrate them to the actual concentration of salts in the bittern liquor. This was not reported in the EIR/S; only ratios of bittern:brine and dilutions were reported, not initial concentrations. | 12-21

4.1.4.6. (p. 4-24) The elevated concentration of DDT in pond 7a is particularly a concern, since the bed of this pond will not be buried by accreted sediment when | 12-22

it is converted to managed pond habitat. Similarly, the elevated concentration of selenium in pond 6a is a concern, since it will persist on the pond bed and remain potentially available to foraging diving ducks. I recommend considering a mitigation measure of temporary tidal sedimentation to deposit a shallow "cover" layer of bay mud to bring near-surface sediment concentrations of DDT and selenium to background (still high, but lower) concentrations. 12-22 cont'd

5.1.4.1. (p. 5-13). The high marsh "typical" plant species listed are not equally representative of the Napa Marsh: *Artemisia, Aster, "Solidago"* (=*Euthamia*) are mostly riparian or fresh-brackish species. Iceplant (Carpobrotus edulis) is unfortunately one of the most abundant high marsh species on the Napa pond levees, and native *Baccharis douglassii* and *B. pilularis* are both much more widespread and important than most of the taxa cited. 12-23

Table 5.3. Note that *Suaeda californica* was extirpated in this estuary, and historic records from Petaluma based on plant remains in bricks (all other species detected were agricultural weeds) are probably erroneous. 12-24

5.2.8.3. (p. 5-32). Note that a single vigorous tussock of *Spartina densiflora* was detected in pond 2A, east end, in 2002, in atypical habitat (bulrush marsh). *S. patens* was detected in Tolay Creek in 2002, but not relocated. Therefore, vigilance for infrequent pioneer colonies of non-native cordgrass is still indicated. 12-25

5.2.8.3. (p. 5-32). Grading will not reduce the area of suitable habitat for pepperweed. Spread of pepperweed (*Lepidium latifolium*) is likely to be facilitated by mechanical disturbance of all substrate in the brackish high marsh zone where seed sources are nearby. Mitigation is indeed necessary, and should consist of surveys for pepperweed for 2 years after grading, or until vegetation and leaf litter cover has closed (continuous cover). New colonies should be destroyed by appropriate means for the scale of infestation, including glyphosate application. 12-26

7.2.3.1. I agree that salinity impacts to fish are unlikely in unconfined areas of ponds and channels, where fish may detect and avoid salinity gradients in moderate tidal currents. Impacts of the project as a whole in the long term should be evaluated in connection with viability of fish populations, including listed fish species. I think there is a strong argument that any short-term risks of adverse impacts during desalinization would be more than offset by long-term, significant increases in potential foraging habitat of tidal marsh channels. 12-27

Minor comment:

Please note that the project title "Napa River Salt Marsh Restoration Project" is a little misleading, since the tidal marsh vegetation and habitat are essentially brackish (in contrast with central and most south San Francisco Bay salt marshes lacking significant freshwater influence), and nontidal or microtidal lagoons are an integral feature of the restoration design. 12-28

This concludes my comments on the EIR/S. I look forward to the development of the project's final design and implementation.

Sincerely,

Peter R. Baye, Ph.D.
Coastal Plant Ecologist

Letter #12. Peter R. Baye

Response to Comment Number 12-1

Comment noted. The project sponsors will rely heavily on the data from the monitoring plan to evaluate the project's progress and the adaptive management plan to assess whether changes to the project are needed in the future. No changes are proposed to the Final EIS.

Response to Comment Number 12-2

The project sponsors are proposing a measured and controlled discharge of a mix of bittern, Pond 7, Pond 7A, Pond 8 water, and recycled water into Napa Slough. Recycled water will be used as make-up water for Pond 7. These discharges will be carefully monitored to ensure they do not exceed RWQCB standards, which are protective of natural resources. Also, these discharges are not directly to the ponds and are unlikely to affect marsh habitat diversity and quality (see Master Response 7. Recycled Water and Water Quality). SCWA plans to offer recycled water to the nearby vineyards as a disposal option depending on the need to use the water for the restoration of Pond 7. No changes are proposed to the Final EIS.

Response to Comment Number 12-3

This suggestion is not feasible. While this approach would accelerate restoration of Pond 7, it would create the exact same salinity reduction concerns for the new storage location. In addition, the transfer of bittern to the east side of the river either would require costly construction of a pipeline or would spread the bittern through the entire canal between Pond 7 and the pipeline leading under the Napa River. Furthermore, while the land on the east side of the Napa River is now owned by DFG, Cargill is currently removing stockpiled salt in preparation for restoration of the property. This process requires access to all the ponds, including the wash pond, for approximately the next 7 years (Ransom pers. comm.). Using one or more of the ponds on the east side of the Napa River to store bittern would simply delay the restoration process for that project. No changes are proposed for the Final EIS.

Response to Comment Number 12-4

The project sponsors agree. An additional clarifying bullet was added to the purpose and need on page S-2 and in Chapter 2.

Response to Comment Number 12-5

Please see response to comment 12-3.

Response to Comment Number 12-6

Comment noted. As the commentor notes, this alternative poses substantial problems and was eliminated by the project sponsors because of the potential adverse effects on existing habitat.

Response to Comment Number 12-7

Growth-inducing effects of the water delivery pipeline were considered and were determined to be less than significant at this time (see also Master Response 6. Recycled Water and Growth Inducement). Subsequent environmental analysis will be required for the Water Delivery Program Component and additional cumulative and growth-inducing effects will be analyzed in that document. Currently, the project sponsors consider the pipeline not to be growth-inducing and the Indian casino to be speculative because of current political opposition to the project and its possible location in Rhonert Park. No changes are proposed to the Final EIS.

Response to Comment Number 12-8

Comment noted. The project sponsors intend to implement a project that offers flexibility over time to achieve the best mix of habitats and uses adaptive management to make informed future management decisions.

Response to Comment Number 12-9

Several commentors have noted the importance of creating additional habitat features. The recommendations provided are valuable to inform future decisions about restoring habitat in the NSMWA. DFG may also integrate other features to optimize habitats, and selected features may be included in the final design. While Habitat Restoration Option 4 focused on the use of fill, and DFG is not interested in using imported fill to accelerate restoration, the "mix" habitat alternative does include levee lowering, starter channels, and ditch blocks to help enhance pond habitat and accelerate restoration of the site. No additional changes to the Final EIS are proposed.

Response to Comment Number 12-10

The commentor is correct in noting that the models used in the habitat evolution analysis are heuristic, meaning they are instructive and exploratory. Additional information was added to the Final EIS to inform the public and decision-makers about the habitat evolution estimates generated by project modeling (see Master Response 1. Habitat Evolution).

Response to Comment Number 12-11

Comment noted. This bulleted goal applies to tidal marsh restoration areas. DFG has more site-specific management goals that focus on pond management. No changes to the Final EIS are proposed.

Response to Comment Number 12-12

Recycled water is proposed to be diverted to agricultural irrigation following pond desalination. No changes to the Final EIS are proposed.

Response to Comment Number 12-13

The land exchange alternative was explored but was deemed infeasible because USFWS's purchase agreement mandated that Cullinan Ranch be restored to tidal marsh, and USFWS desires to restore Cullinan Ranch. Discussions with the USFWS have indicated their continued objective of restoring the property to tidal marsh.

Furthermore, while the land exchange concept has merit, at least in the short-term sense, it may be problematic to implement over the long term and is not supported by the USFWS. For example, long-term maintenance of a deepwater pond on Cullinan Ranch adjacent to an SR 37 levee may be problematic because of wind-wave erosion and hunting restrictions. The USFWS expects that in the long term, shallower ponds or marshes on Cullinan Ranch would be easier to maintain. In addition, the USFWS's acquisition of Cullinan Ranch was intended to preserve or provide habitat for endangered species, specifically the salt marsh harvest mouse and California clapper rail, and prevent future development of the site that would destroy that habitat. Tidal restoration is needed to provide such endangered species habitat. There were no time constraints placed on future restoration processes themselves, and the USFWS believes their proposed restoration plan will allow a long-term progression from deepwater tidal pond to shallow tidal pond to tidal marsh habitats.

Response to Comment Number 12-14

This clarification was integrated into the Final EIS.

Response to Comment Number 12-15

Comment noted. This information will be considered as part of monitoring and the adaptive management plan. No changes to the Final EIS are proposed.

Response to Comment Number 12-16

The Draft EIR/EIS presents simplified assumptions about marsh evolution, which are scientifically based. It is true that the vegetation changes occur over gradients. Additional information was added to the Final EIS as described in Master Response 1. Habitat Evolution.

Response to Comment Number 12-17

Comment noted. This information will be considered as part of the monitoring and adaptive management plan.

Response to Comment Number 12-18

Comment noted. This information will be considered as part of the monitoring and adaptive management plan.

Response to Comment Number 12-19

This recommendation has been integrated into the Final EIS. The revised paragraph now reads:

Once the project is implemented, a monitoring and adaptive management plan will be implemented to monitor the expansion of the slough channels to accommodate the additional tidal prism and to ensure that the expansion does not threaten the adjacent levee systems. If channel expansion threatens adjacent levees, a California-licensed civil engineer will evaluate the stability of the levee protecting adjacent properties and recommend measures to reduce erosion. T~~t~~he adaptive management team will select measures from these recommend~~ed~~ations ~~measures~~ to protect the levee in question. These measures may include additional levee breaches, altering the phasing of pond levee breaching, or requiring levee repairs ~~or revetment~~.

Response to Comment Number 12-20

Information on the assumed suspended sediment concentrations in the project area was added to the Final EIS Section 4.1.3.2: An average suspended sediment concentration of 125 mg/l was assumed to be characteristic of the project area. (PWA 2002c), and was used to estimate the rate of habitat development in Pond 3 (closest to Mare Island Strait). A more conservative suspended sediment concentration of 75 mg/l was used to estimate the rate of habitat development in Ponds 4 and 5. This lower suspended sediment concentration accounts for the effect of Pond 3 sediment demand and the greater distance to Mare Island Strait.

Additional information on overall marsh evolution and the assumptions used to estimate marsh evolution is provided in *Habitat Restoration Preliminary Design Phase 2, Stage 2 of the Hydrology and Geomorphology Assessment in Support of the Feasibility Study* (PWA 2002c).

Response to Comment Number 12-21

As described in Master Response 2. Bittern Discharge, the initial concentration of the bittern tested in May 2002 was 310 ppt. The distribution of ions is presented below in Table 3-3. The initial bittern discharge concentration will be set at 1%, consistent with the earlier, more extensive, test data. The long-term discharge ratio will be determined based on additional laboratory testing and adaptive management in the field.

Table 3-3. Initial Bittern Concentrations

				CATIONS				
Sample ID	Date Sampled	Matrix	Salinity (g/Kg)	Chloride (mg/L)	Bromide (mg/L)	Sulfate (mg/L)	Bicarbonate (mg/L)	Ortho-phosphate Phosphorus (mg/L)
NSM07	4/19/02	water	300	160,000	1,100	32,000	25	ND < 0.20
NSM08	05/01/02	water	140	-	-	-	-	-
NSM08-dup	05/01/02	water	146	-	-	-	-	-
NSM07	05/14/02	water	310	190,000	1,200	41,000	55	ND < 0.20
NSM07-dup	05/14/02	water	323	-	-	-	-	-
NSM08	05/14/02	water	190	95,000	510	18,000	ND < 1	ND < 0.20

ANIONS							
Sample ID	Date Sampled	Matrix	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
NSM07	4/19/02	water	280	7	19,000	4,300	31,000
NSM08	05/01/02	water	-	-	-	-	-
NSM08-dup	05/01/02	water	-	-	-	-	-
NSM07	05/14/02	water	260	2	30,000	7,400	65,000
NSM07-dup	05/14/02	water	-	-	-	-	-
NSM08	05/14/02	water	820	44	11,000	2,800	45,000

Response to Comment Number 12-22

Comment noted. The project sponsors believe levels of DDT in Pond 7 and selenium in Pond 6a are not of concern based on toxicological studies conducted for the Hamilton wetland restoration project. For example, the cleanup standard established by USFWS for Hamilton is 11 ppb.

Response to Comment Number 12-23

The information on upper tidal marsh species was revised in the Final EIS.

Response to Comment Number 12-24

This species was removed from the Final EIS.

Response to Comment Number 12-25

Comment noted. Mitigation Measure V-3 includes provisions for ongoing monitoring of invasives.

Response to Comment Number 12-26

The project sponsors will evaluate invasive plants as part of the monitoring and adaptive management program, and pepperweed will be a species documented and controlled, if necessary. No changes to the Final EIS are proposed.

Response to Comment Number 12-27

Comment noted. Future monitoring of aquatic species is proposed, and the project is expected to provide substantial benefits to aquatic species.

Response to Comment Number 12-28

To ensure consistency with previous Congressional funding allocations, the project sponsors retained the existing title. However, it is correct that the project reflects brackish marsh restoration efforts.

Comment Letter 13

Amy Hutzel

From: mike_morris@chandon.com
Sent: Thursday, June 05, 2003 1:51 PM
To: ahutzel@scc.ca.gov
Cc: titosasaki@attglobal.net
Subject: Napa River Salt Marsh Restoration Project

Napa County Mosquito Abatement District seems to be underfunded. NRSMRP will potentially increase the District's work load. Funding provisions should be included in the restoration project for long term mosquito and related disease control. This funding should originate at the state level, not from local property taxes. The benefit extents far beyond Napa and Solano counties. 13-1

The use of re-cycled water from the Sonoma Valley treatment plant for NRSMRP should not effect the re-cycled water supply and use by Sonoma County farmers in the Carneros region. 13-2

Comment Letter 14

Amy Hutzel

From: Suzanne Schweitzer [sschweitzer@ci.vallejo.ca.us]
Sent: Monday, June 16, 2003 3:14 PM
To: ahutzel@scc.ca.gov; S.Tolle@spd02.usace.army.mil
Cc: Gary Leach; Katherine Donovan
Subject: Napa River Salt Marsh Restoration Project

On behalf of the Vallejo City Engineer, I am writing to thank you for the opportunity to review and comment on the Napa River Salt Marst Restoration Project DEIR. We have no comments at this time.

Suzanne L. Schweitzer
Administrative Analyst II
Engineering Division/Public Works Dept.
City of Vallejo, CA
phone 707.651-7152 fax 707.648-4691
email: SSchweitzer@ci.vallejo.ca.us

Letter #13. Mike Morris

Response to Comment Number 13-1

The project sponsors do not expect the workload of the mosquito abatement district to increase as a result of the project. The project sponsors will work with the district to design the project and continue to work with them after restoration. Also, the monitoring and adaptive management program will help the project sponsors and mosquito abatement district make any necessary decisions about mosquito abatement.

Response to Comment Number 13-2

SCWA intends to offer the recycled water to local farmers when Pond 7 has been restored. Existing recycled water supplies will remain unchanged.

Appendix A

Public Meeting Transcript

Appendix B

Mitigation Monitoring and Reporting Plan

Mitigation Monitoring and Reporting Plan

Purpose of This Document

The purpose of this appendix is to comply with the National Environmental Policy Act (NEPA) provision for mitigation and monitoring as codified in 40 C.F.R. 1802.16(a)(b). Mitigation Monitoring and Reporting Plans (MMRPs) help to ensure that measures adopted as part of the Final EIS mitigate or avoid significant impacts and are implemented. MMRPs can also help address uncertainty and ensure a project's success.

This MMRP identifies the mitigation monitoring and reporting requirements for all of the resources identified in the Final EIS requiring mitigation, including:

- hydrology;
- water quality;
- vegetation;
- wildlife;
- aquatic resources;
- geology;
- hazards and hazardous materials;
- transportation and circulation;
- air quality;
- noise;
- public services and utilities;
- recreation, public access, visual resources and public health;
- cultural resources.

Table 1 identifies mitigation measures from the Final EIS and their respective implementation timing, monitoring requirements, and responsible party.

Roles and Responsibilities

The project sponsors, California State Coastal Conservancy (Coastal Conservancy), U.S. Army Corps of Engineers (Corps), California Department of Fish and Game (DFG), and Sonoma

County Water Agency (SCWA), are committed to ensuring that the project is implemented safely and will avoid, minimize, or reduce adverse environmental impacts.

Mitigation Monitoring and Reporting Plan Adoption Process

The MMRP will be adopted by Corps at the time it certifies the Final EIS and prepares the Record of Decision. The MMRP contains mitigation measures that the Corps, DFG, the Coastal Conservancy, and SCWA have concluded will avoid or substantially lessen the significant environmental effects identified in the Final EIS.

Implementation of this MMRP will serve to fulfill the requirements of NEPA and will ensure that significant impacts of the proposed project are avoided or mitigated.

Table 1. Mitigation Measures Associated with Implementation of the Proposed Project

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Hydrology				
Mitigation Measure H-1: Repair Unintended Levee Breaches[1]	Prevent channel erosion and potential damage to adjacent levee systems	As needed during construction Spring 2005-Fall 2006	Monitoring as needed during construction. Every 2 years following construction (if needed)	Corps[4]
Mitigation Measure H-3: Refine Project Design to Limit Adverse Effects of Increased Tidal Discharge	Minimize adverse effects of increased tidal discharge	Refine design: Fall 2003[2] Monitor: Fall 2005-2010	Monitoring every 2 years following construction for up to 10 years	Corps & Coastal Conservancy
Mitigation Measure H-4: Evaluate Susceptibility of Levees to Wind-Driven Wave Erosion and Conduct Repairs as Needed	Reduce risk of levee erosion	Annually beginning in Fall 2005	Routine monitoring may be recommended by engineer	Corps[4]
Water Quality				
Mitigation MeasureWQ-1: Obtain RWQCB Authorization under Waste Discharge Requirements or NPDES Stormwater Permit for General Construction Activity and Implement Best Management Practices	Minimize temporary water quality impairment due to construction activities	Prior to and during construction Spring 2005	Water quality monitoring during construction	Corps[4]
Mitigation Measure WQ-2: Design Project in Compliance with Resource Agency Permit Conditions and Conduct Water Quality Monitoring	Ensure timing of construction and potential salinity impacts are in compliance with WDRs	Prior to construction Fall 2003[2]	Water quality monitoring periodically for up to 5 years following construction for managed ponds and up to 3 years for tidal ponds	Corps[4] & Coastal Conservancy
Mitigation Measure WQ-3: Design, Operate, and Monitor Use of Recycled Water in Accordance with RWQCB Requirements	Avoid adverse water quality conditions resulting from use of recycled water	Prior to construction Fall 2003[2]	Recycled water monitoring program will include specific monitoring and data quality objectives. Monitoring for up to 5 years for managed ponds. Tidal ponds do not receive recycled water. Bittern removal monitoring period should stop when it is clear there will not be an impact. Recycled water NPDES monitoring will continue as specified in the permit.	Corps[4], Coastal Conservancy & SCWA

Table 1. Continued

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Mitigation Measure WQ-4: Monitor Pond Water Quality and Use Adaptive Management	Document that accumulation of trace metal and organic compounds do not occur in restored wetlands	Following construction Fall 2005-2010	Collect water quality and sediment samples periodically for up to 10 years for managed ponds and 5 years for tidal ponds	DFG[5]
Mitigation Measure WQ-5: Prepare Levees and Time Breaches	Minimize the amount of sediment discharged into the water	During construction Fall 2005-2010	Monitoring during construction until breaches are stabilized	Corps[4]
Mitigation Measure WQ-6: Prepare and Implement Storm Water Pollution Prevention Plans	Reduce construction-related water quality impacts	Prepare SWPPP prior to construction Fall 2004 Implement SWPPP during construction Fall 2004-Fall 2006	Ensure BMP's are implemented as appropriate throughout duration of pipeline construction	SCWA
Vegetation				
Mitigation Measure V-1: Avoid Ground Disturbance in Populations of Soft Bird's-Beak	Avoid impacts to populations of Soft Bird's-Beak	Prior to construction Spring 2005	Pre-construction surveys for presence of species	DFG[5]
Mitigation Measure V-2: Conduct Preconstruction Surveys and Implement Avoidance, Minimization, and Mitigation Measures	Minimize impacts on biological resources	Prior to construction Spring 2005	Routine monitoring prior to construction	SCWA
Mitigation Measure V-3: Monitor and Manage Invasive Exotic Plant Species	Monitor and manage nonnative invasive cordgrass species	Following construction Spring 2005-Fall 2005-2010	Monitoring will start when vegetation surveys show that one or more areas of the restored tidal ponds have reached and elevation suitable for cordgrass colonization and will continue as part of the management of the wildlife area	DFG

Table 1. Continued

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Wildlife				
Mitigation Measure W-1: Avoid Construction Activities near Nesting Habitats during Breeding Season	Minimize adverse effects on nesting bird species in the area	Prior to and during construction Spring 2005	Pre-construction surveys for presence of species and monitoring during construction	DFG
Mitigation Measure W-2: Avoid Construction Activities near Occupied Suisun Ornate Shrew Habitat or Remove Shrews	Minimize adverse effects on Suisun ornate shrew	Prior to and during construction Spring 2005-Fall 2010	Pre-construction surveys for presence of species and monitoring during construction	DFG
Mitigation Measure W-3: Avoid Construction Activities near Occupied Salt Marsh Harvest Mouse Habitat	Minimize adverse effects on Salt Marsh Harvest Mouse	Prior to and during construction Spring 2005-Fall 2010	Pre-construction surveys for presence of species and monitoring during construction	DFG
Mitigation Measure W-4: Complete Focused Surveys for Special-Status Wildlife Species before Construction	Minimize impacts on special-status species	Prior to and during construction Spring 2005-Fall 20010	Pre-construction surveys for presence of species and monitoring during construction	SCWA
Mitigation Measure W-5: Educate Construction Crews regarding Special-Status Wildlife Species	Minimize impacts to special-status species	Prior to construction Fall 2004-Fall 2006	Monitoring as needed during construction	SCWA & DFG
Mitigation Measure W-6: Use Trenchless Construction Techniques for Special-Status Wildlife Species Protection	Minimize surface construction within sensitive locales	During construction Spring 2005-Fall 2006	Monitoring as needed during construction of pipeline	SCWA
Mitigation Measure W-7: Restore Habitat Modified by Construction	Restore habitat to preconstruction conditions	Following pipeline construction Fall 2005-2010	Monitoring as needed until habitat is restored along pipeline	SCWA

Table 1. Continued

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Aquatic Resources				
Mitigation Measure A-1: Minimize Entrainment of Sensitive Species	Minimize entrainment of fish species	During and following construction Spring 2005-Fall 2005-2010	Monitoring starts after water control structures are put into operation. Monitor during periods of potential presence of special status species	DFG[5]
Mitigation Measure A-3: Assess and Maintain Salinity Levels Protective of Aquatic Resources[3]	Minimize adverse effects on fish species due to salinity and other water quality requirements	Following construction Fall 2005-2010	Periodic monitoring of water quality for up to 5 years following construction for managed ponds and up to 10 years for tidal ponds	DFG[5]
Geology				
Mitigation Measure Geo-1: Maintain Water Level 2 Feet Below Levee Crest	Reduce potential for levee erosion	Following construction Fall 2005-2010	Periodic monitoring of water level in ponds for 5 years following construction for managed ponds	DFG[4]
Mitigation Measure Geo-2: Remove Unstable or Expansive Soils and Backfill with Engineered Fill	Minimize impacts due to construction of water pipeline on unstable soils	During construction Spring 2005-Fall 2010	Monitoring as needed during pipeline construction	SCWA
Hazards and Hazardous Materials				
Mitigation Measure Haz-1: Provide Enhanced Spill Prevention and Response Training, and Spill Response Preparation	Reduce exposure and/or release of hazardous materials	During construction Spring 2005- Fall 2010	Monitoring as needed during construction	Corps
Mitigation Measure Haz-2: Employ Explosives Experts when Breaching Levees	Reduce potential releases of residual hazardous materials	During construction Fall 2005-Fall 2010	Monitoring as needed during construction	Corps
Mitigation Measure Haz-3: Develop and Implement a Health & Safety Plan	Reduce potential exposure to irritant dust	Develop plan prior to construction; Fall 2005; Implement plan during construction on Pond 7; Spring 2006-Fall 2007	Monitoring as needed during construction	Corps & Coastal Conservancy

Table 1. Continued

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Mitigation Measure Haz-4: Monitor Perimeter Dust Concentrations during Work on and in the Vicinity of Pond 8	Reduce potential exposure to irritant dust	During construction Spring 2005-Fall 2006	Periodic monitoring during construction	Corps
Mitigation Measure Haz-5: Prepare and Implement a Safety Plan	Reduce potential impacts on human health	Prior to start of each construction contract and during construction Fall 2005-Fall 2006	Periodic monitoring during construction	Corps & SCWA
Transportation and Circulation				
Mitigation Measure T-1: Implement Safety Plan for Pipeline Construction along Rail Line	Reduce potential for construction-related traffic hazards during water pipeline construction	Develop plan prior to construction; implement during construction Fall 2005-Fall 2006	Monitoring as needed during pipeline construction	SCWA
Mitigation Measure T-2: Implement Safety Plan for Construction along Public Roads	Reduce potential for construction-related traffic hazards	Develop Plan Prior to construction; implement during construction Fall 2005-Fall 2006	Monitoring as needed during construction	Corps
Air Quality				
Mitigation Measure AQ-1: Minimize Dust Generation in and Implement Dust Control Measures for Work Areas with Salt Crusts	Minimize potential disturbance of salt crusts	During construction Spring 2006-Fall 2008	Monitoring as needed during construction	Corps
Noise				
Mitigation Measure N-1: Decrease Noise Levels with Use of Noise Reduction Devices	Minimize increases in ambient noise levels during water pipeline construction	During construction Fall 2005-Fall 2010	Monitoring as needed during pipeline construction	SCWA

Table 1. Continued

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Public Services and Utilities				
Mitigation Measure PS-1: Ensure the Stability of the Power Towers	Reduce potential of power tower instability	Prior to, during and following construction Spring 2005-Fall 2005-2010	Routine monitoring following construction	Corps
Recreation, Public Access, Visual Resources and Public Health				
Mitigation Measure R-1: Coordinate Project Activities with the Napa County Mosquito Abatement District	Minimize increase in mosquito production	Prior to, during and following construction Spring 2005-Fall 2005-2010	Monitoring as needed during project and following the implemented action	Corps & DFG
Mitigation Measure R-2: Prepare a Public Access Plan	Maintain public access to the wildlife area during construction	Prior to construction Fall 2005	Monitoring as needed during pipeline construction	SCWA
Cultural Resources				
Mitigation Measure C-1: Stop Work if Cultural Resources Are Discovered during Ground-Disturbing Activities	Minimize impacts to cultural resource sites	During construction Spring 2005-Fall 2006	Monitoring as needed during construction	Corps & DFG[5]
Mitigation Measure C-2: Comply with State Laws Pertaining to the Discovery of Human Remains	Minimize impacts to cultural resources	During construction Spring 2005-Fall 2006	Monitoring as needed during construction	Corps, SCWA & DFG[5]
Mitigation Measure C-3: Conduct Archaeological Monitoring of Construction Activities in the Vicinity of CA-NAP-224, C-164, and CA-NAP-230	Minimize impacts to archaeological resources	During construction Spring 2005-Fall 2006	Periodic monitoring during construction	SCWA

Table 1. Continued

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Cumulative Impacts and Other Required Analyses				
Mitigation Measure Cu-1: Implement Monitoring & Adaptive Management Program	Minimize cumulative impacts to hydrology of Lower Napa River	Following construction Fall 2005-2010	Periodic monitoring of key project parameters for 5 years following construction for managed ponds	Corps, Coastal Conservancy, & DFG[5]
Mitigation Measure Cu-3: Conduct Biological Surveys for Sensitive Biological Resources	Minimize cumulative impacts to biological resources	Prior to and during construction Fall 2005	Pre-construction surveys and monitoring 1 year after initial levee breach and would continue every 2 years for no more than 5 years	DFG[5]
Mitigation Measure Cu-3: Contribute to Regional Research Efforts on the Exposure of Wildlife to Contaminants	Reduce exposure of wildlife to contaminants	Following construction Fall 2005-2010	Periodic monitoring for 10 years after each pond is breached	DFG & USGS
Water Delivery Program Component				
Hydrology				
Mitigation Measure H-2: Avoid Drainage Pattern Alteration in Plans for Future Pipeline Alignments	Avoid substantial alteration of drainage patterns	Prior to construction	Coordinate with City of Petaluma, Novato SD, and LGVSD WWTPs to ensure pipeline alignments do not cause substantial alteration of drainage pattern	SCWA
Wildlife				
Mitigation Measure W-4: Complete Focused Surveys for Special-Status Wildlife Species before Construction	Minimize impacts on special-status species	Prior to and during construction	Pre-construction surveys for presence of species and monitoring during pipeline construction	SCWA
Mitigation Measure W-5: Educate Construction Crews regarding Special-Status Wildlife Species	Minimize impacts to special-status species	Prior to construction	Monitoring as needed during pipeline construction	SCWA

Table 1. Continued

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Mitigation Measure W-6: Use Trenchless Construction Techniques for Special-Status Wildlife Species Protection	Minimize surface construction within sensitive locales	During construction	Monitoring as needed during pipeline construction	SCWA
Mitigation Measure W-7: Restore Habitat Modified by Construction	Restore habitat to preconstruction conditions	Following pipeline construction	Monitoring as needed until habitat is restored along pipeline	SCWA
Aquatic Resources				
Mitigation Measure A-4: Use Trenchless Technology during Construction to Protection Aquatic Species	Minimize impacts to aquatic species	During construction	Monitoring as needed during construction	SCWA
Transportation and Circulation				
Mitigation Measure T-1: Implement Safety Plan for Pipeline Construction along Rail Line	Reduce potential for construction-related traffic hazards during water pipeline construction	Develop plan prior to construction; implement during construction	Monitoring as needed during pipeline construction	SCWA
Mitigation Measure T-2: Implement Safety Plan for Construction along Public Roads	Reduce potential for construction-related traffic hazards	Develop plan prior to construction; implement during construction	Monitoring as needed during pipeline construction	SCWA
Noise				
Mitigation Measure N-1: Decrease Noise Levels with Use of Noise Reduction Devices	Minimize increases in ambient noise levels during water pipeline construction	During construction	Monitoring as needed during pipeline construction	SCWA
Recreation, Public Access, Visual Resources and Public Health				
Mitigation Measure R-2: Prepare a Public Access Plan	Maintain public access to the wildlife area during construction	Prior to construction	Monitoring as needed during pipeline construction	SCWA

Table 1. Continued

Mitigation Measure	Purpose	Implementation Timing	Monitoring Requirements	Responsible Party
Cultural Resources				
Mitigation Measure C-4: Conduct Records Search and Visual Survey	Minimize impacts to archaeological resources during pipeline construction	Prior to construction	Ensure survey is completed before programmatic pipeline plans are released	SCWA

Note:

[1] Mitigation Measure H-2 is listed under the Water Delivery Program Component section.

[2] This portion of the mitigation measure has already been completed.

[3] Mitigation Measure A-4 is listed under the Water Delivery Program Component section.

[4] Except for ponds 1-3 and 8 which DFG will be responsible for evaluating as part of management of the wildlife area.

[5] Restoration, salinity and contaminant monitoring will focus on managed ponds 6, 6A, 7, 7A and 8, and on tidal ponds 3, 4 and 5. Ponds 1, 1A, 2 and 2A will continue to be monitored as part of the management of the wildlife area.